



aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



Pneumatics

A complete range of pneumatic system components



Need something ?

It's



Using the Technical Catalogue CD

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On the opening page are displayed the options available.

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- 3. View Bookshelf.** Simple to use navigation, click on the product type and the overview of all products in that type will open. Click on the product you require and the Technical Catalogue will be displayed
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WARNING

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Parker's Motion & Control Technologies

At Parker, we're guided by a relentless drive to help our customers become more productive and achieve higher levels of profitability by engineering the best systems for their requirements. It means looking at customer applications from many angles to find new ways to create value. Whatever the motion or control technology need, Parker has the experience, breadth of product and global reach to consistently deliver. No company knows more about motion and control technology than Parker. For further information call 0800 27 27 5374



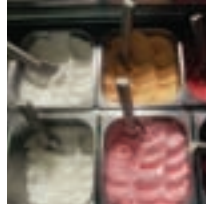
AEROSPACE

Key Markets

- Aircraft engines
- Business & general aviation
- Commercial transports
- Land-based weapons systems
- Military aircraft
- Missiles & launch vehicles
- Regional transports
- Unmanned aerial vehicles

Key Products

- Flight control systems & components
- Fluid conveyance systems
- Fluid metering delivery & atomization devices
- Fuel systems & components
- Hydraulic systems & components
- Inert nitrogen generating systems
- Pneumatic systems & components
- Wheels & brakes



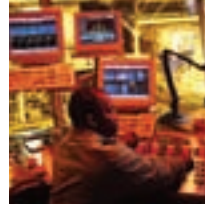
CLIMATE CONTROL

Key Markets

- Agriculture
- Air conditioning
- Food, beverage & dairy
- Life sciences & medical
- Precision cooling
- Processing
- Transportation

Key Products

- CO₂ controls
- Electronic controllers
- Filter driers
- Hand shut-off valves
- Hose & fittings
- Pressure regulating valves
- Refrigerant distributors
- Safety relief valves
- Solenoid valves
- Thermostatic expansion valves



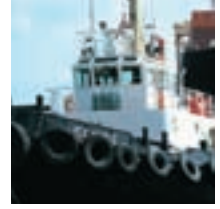
ELECTROMECHANICAL

Key Markets

- Aerospace
- Factory automation
- Life science & medical
- Machine tools
- Packaging machinery
- Paper machinery
- Plastics machinery & converting
- Primary metals
- Semiconductor & electronics
- Textile
- Wire & cable

Key Products

- AC/DC drives & systems
- Electric actuators, gantry robots & slides
- Electrohydraulic actuation systems
- Electromechanical actuation systems
- Human machine interface
- Linear motors
- Stepper motors, servo motors, drives & controls
- Structural extrusions



FILTRATION

Key Markets

- Food & beverage
- Industrial machinery
- Life sciences
- Marine
- Mobile equipment
- Oil & gas
- Power generation
- Process
- Transportation

Key Products

- Analytical gas generators
- Compressed air & gas filters
- Condition monitoring
- Engine air, fuel & oil filtration & systems
- Hydraulic, lubrication & coolant filters
- Process, chemical, water & microfiltration filters
- Nitrogen, hydrogen & zero air generators



FLUID & GAS HANDLING

Key Markets

- Aerospace
- Agriculture
- Bulk chemical handling
- Construction machinery
- Food & beverage
- Fuel & gas delivery
- Industrial machinery
- Mobile
- Oil & gas
- Transportation
- Welding

Key Products

- Brass fittings & valves
- Diagnostic equipment
- Fluid conveyance systems
- Industrial hose
- PTFE & PFA hose, tubing & plastic fittings
- Rubber & thermoplastic hose & couplings
- Tube fittings & adapters
- Quick disconnects



HYDRAULICS

Key Markets

- Aerospace
- Aerial lift
- Agriculture
- Construction machinery
- Forestry
- Industrial machinery
- Mining
- Oil & gas
- Power generation & energy
- Truck hydraulics

Key Products

- Diagnostic equipment
- Hydraulic cylinders & accumulators
- Hydraulic motors & pumps
- Hydraulic systems
- Hydraulic valves & controls
- Power take-offs
- Rubber & thermoplastic hose & couplings
- Tube fittings & adapters
- Quick disconnects



PNEUMATICS

Key Markets

- Aerospace
- Conveyor & material handling
- Factory automation
- Life science & medical
- Machine tools
- Packaging machinery
- Transportation & automotive

Key Products

- Air preparation
- Brass fittings & valves
- Manifolds
- Pneumatic accessories
- Pneumatic actuators & grippers
- Pneumatic valves & controls
- Quick disconnects
- Rotary actuators
- Rubber & thermoplastic hose & couplings
- Structural extrusions
- Thermoplastic tubing & fittings
- Vacuum generators, cups & sensors



PROCESS CONTROL

Key Markets

- Chemical & refining
- Food, beverage & dairy
- Medical & dental
- Microelectronics
- Oil & gas
- Power generation

Key Products

- Analytical sample conditioning products & systems
- Fluoropolymer chemical delivery fittings, valves & pumps
- High purity gas delivery fittings, valves & regulators
- Instrumentation fittings, valves & regulators
- Medium pressure fittings & valves
- Process control manifolds



SEALING & SHIELDING

Key Markets

- Aerospace
- Chemical processing
- Consumer
- Energy, oil & gas
- Fluid power
- General industrial
- Information technology
- Life sciences
- Military
- Semiconductor
- Telecommunications
- Transportation

Key Products

- Dynamic seals
- Elastomeric o-rings
- EMI shielding
- Extruded & precision-cut, fabricated elastomeric seals
- Homogeneous & inserted elastomeric shapes
- High temperature metal seals
- Metal & plastic retained composite seals

ENGINEERING YOUR SUCCESS.



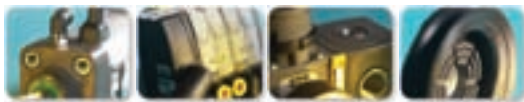
Global Manufacture for Local Supply

Stocked Products

Many items in this catalogue are marked as 'Stocked Product', this means they are stocked for immediate delivery in the European Distribution Centre (EDC).

The 'stocked products' are the most popular items from each range and will be suitable for the vast majority of applications, however the Technical Catalogue CD located inside the front cover of this catalogue contains all the technical catalogues for the complete Parker Pneumatic range in pdf, with full details of models and options not shown on the following pages.

Part numbers not identified, as 'stocked products' are available but lead times vary and we advise that you consult the local sales office for specific details. Sales office telephone and fax numbers are located on the back cover.



Parker's Official Distributor Network

Our official distributors are always located close to the heart of industry, ensuring Parker products are available for rapid delivery and are supported by first class technical backup.

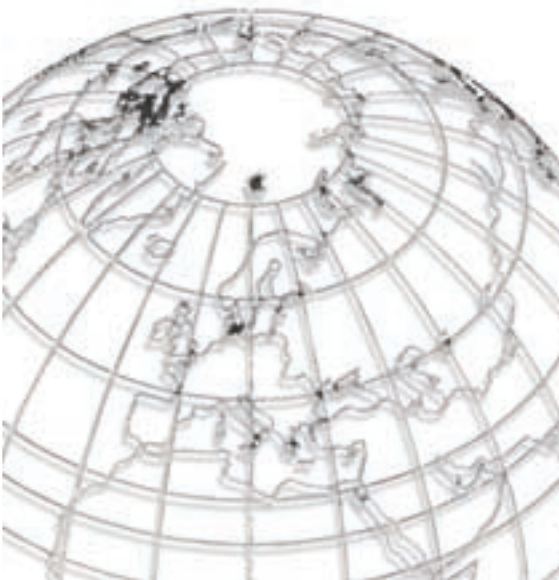
Parker has the largest distribution network in its field, with over 7500 distributors serving more than 350,000 customers worldwide.

From Standard Products to Custom Solutions

At Parker Pneumatic we recognise that future success will only be achieved by providing innovative, quality products coupled with 'Premier Customer Service'. We maintain and develop our leading edge expertise by concentrating on a number of market segments, such as road transport, the food industry and aluminium smelters. We have developed pneumatic components that withstand abrasive aluminium oxide, desert heat, Nordic cold and strong detergents in washdown applications. Our knowledge and experience comes as standard in all our products.



Parker's objective is to keep one step ahead by developing tomorrow's solutions today.



Road Transport

From Nordic forests to suburban estates, Parker Pneumatic products are keeping all sorts of road vehicles... moving, lifting, loading and rolling.

Dairy Technology

Parker products are contributing to the future of dairy technology, delivering state of the art solutions to major manufacturers through out the world.



Food Process

Parker Pneumatic equips machines in all stages of food production from meat and cheese processing to carcass handling; supplying a wide selection of customised products.

Packaging Industry

Manufacturers of automated packaging machines are selecting Parker products, for reliable performance combined with world wide availability.



Rail Industry

From door control and actuation to braking systems and automatic coupling, you'll find innovative and reliable Parker Pneumatic components and systems.

Primary Aluminium

Parker Pneumatic is the world leader in the design and manufacture of Crustbreaker and Point Feed cylinders to the primary aluminium industry.



Automotive Industry

Major automotive manufacturers throughout the world are benefiting from Parker's global supply and local technical support, for a wide range of pneumatic components and systems.

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Linear Actuators



P1G Cylinders

Ø6, 10 & 16mm Bore sizes
Non-lube operation
Corrosion resistant design
Integral mounting thread
Compact construction
Single acting as standard.

Catalogue No. **PDE2571TCUK-ul**



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C05 Short Stroke Cylinders

Ø8 - 63mm bore sizes
Short stroke providing high clamping force
Compact dimensions for confined spaces
Single and double acting
Simple installation and mounting.

Catalogue No. **PDE2560TCUK-ul**



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P1J Compact Cylinders

Ø12 - 63mm
Stroke lengths up to 100mm
Single and double acting
Magnetic piston as standard
Compact dimensions for confined spaces
Complete range of mountings & sensors.

Catalogue No. **PDE2561TCUK-ul**



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P1M Short Build Cylinders

Ø12 - 100mm
Stroke lengths up to 500mm
Single and double acting
Magnetic piston as standard
Flexible porting options
Complete range of mountings & sensors.

Catalogue No. **PDE2562TCUK-ul**



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P5T Compact Cylinders

Ø12 - 100mm bore size
Complete cylinder with integral guidance
Plain bearing or twin recirculating bearings
End stop cushioning as standard
Magnetic as standard
Flexible porting and mounting
Standard strokes 10 - 200mm

Catalogue No. **PDE2557TCUK-ul**



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P1K Cylinders

Ø32 - 125mm Bore sizes
Single and double acting
Clean line profile design
Designed for dry piston rod operation
End stroke buffers for long service life
Position sensing versions.

Catalogue No. **PDE2577TCUK-ul**



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P1A Mini ISO Cylinders

Ø10 - 25mm Bore size to ISO 6432
Magnetic piston as standard
End stroke buffers for long service life
Adjustable cushioning Ø16 - 25mm Bore sizes
Complete range of mountings & sensors
Piston rod guidance units available.

Catalogue No. **PDE2564TCUK-ul**



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7112 All Round Cylinders

Ø32, 40 & 50mm Bore size
Non-lube operation
All round clean line design
Magnetic piston as standard
Adjustable cushioning
Complete range of mountings & sensors.

Catalogue No. **2114GB-ca**



P1S Stainless Steel Cylinders

All stainless steel design
Mini ISO 6432 Ø10 - 25mm Bore sizes
Standard ISO 6431 Ø32 - 125mm Bore sizes
Magnetic piston as standard
Clean design ideal for washdown
Adjustable end cushioning
Initial lubrication with food grade grease.

Catalogue No. **PDE2535TCUK-ul**



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P1D ISO/VDMA Cylinders

Ø32 - 125mm Bore size ISO/VDMA standard
Double acting with adjustable end cushioning
Magnetic piston as standard
Flexible porting option
Non-lube operation
'Clean' version for food industry
Complete range of sensors and mountings

Catalogue No. **PDE2570TCUK-ul**



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P1E VDMA 24562 Cylinders

Ø160 - 200mm Bore sizes VDMA standard
Double acting with adjustable end cushioning
Magnetic piston as standard
Non-lube operation
Tie rod construction
Complete range of mountings & sensors.

Catalogue No. **PDE2580TCUK-ul**



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C41 ISO 6431 Cylinders

Ø160 - 200mm Bore sizes ISO standard
Heavy duty tie rod design
Magnetic piston as standard
Tandem cylinders
Thru-rod cylinders
3 and 4 position cylinders

Catalogue No. **PDE2581TCUK-ul**



Linear Actuators



Air Bellows

10 sizes Ø70 - 660mm
Strokes from 45 - 430mm
High thrust frictionless movement
Single, double or triple convolutions
Maintenance free.

Catalogue No. **PDE2576TCUK-ul**



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C0D - C0P Thrust Cylinders

Short stroke high thrust design
Compact dimensions
Diaphragm or piston versions
Single or double acting.

Catalogue No. **PDE2563TCUK-ul**



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Air Clamp Cylinders

Range of imperial sizes
Single acting
Ideal for mechanical clamping
Compact design

Catalogue No. **PDE2521TCUK-ca**





Hydrochecks

Range of imperial sizes
Gives smooth control feeds
Strokes up to 450mm

Catalogue No. **See CD**



P1V-S Air Motors

All stainless steel design
From 0.120kW - 1.2kW power
For arduous applications
Non-lube intermittent operation
External seals viton
Ideal for food industry applications.

Catalogue No. **PDE2554TCUK-ul**



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P1V-A Large Air Motors

Designed for arduous applications.
Wide range of optional gears
Wide speed and torque range
1.6kW, 2.6kW, 3.6kW

Catalogue No. **PDE2555TCUK-ul**



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P1V-B Large Vane Air Motors

Power 5,1 kW, 9 kW and 18 kW
For the very heavy applications
Free speed from 400 up to 300 rpm
High torque from 57 to 160 Nm by max output power

Catalogue No. **PDE2541TCUK-ul**



P1V-M Robust Vane Air Motors

Power 0,2 kW, 0,4 kW and 0,6 kW
Patented way for simple change of vanes
Free speeds from 28 up to 10000 rpm
Torque from 0,38 Nm up to 380Nm by max output power
Standard equipped with flange mounting
Footmountings as accessories

Catalogue No. **PDE2539TCUK-ul**



P1V-P Radial Piston Air Motors

P1V-P piston motor
Power 0,73 kW, 0,125kW and 0,228kW
Low speed and high torque
Available as base and brake motors
Free speed from 2200 down to 7,4 rpm
High torque from 0,637Nm up to 500Nm
No wear parts necessary if supplied with oil mist

Catalogue No : **PDE2538TCUK-ul**



Rotary Actuators



RA Rotary Actuators Rack & Pinion Type

High torque
Uniform torque in both directions
Compact design
90° or 180° rotation
Output shaft with key

Catalogue No. **PDE2556TCUK-ca**



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PV Rotary Actuators - Vane Type

Double acting actuators
Single or double vane
Compact smooth design
Uniform torque in both directions
Angle adjustment and sensors available.

Catalogue No. **See CD**



PRO - PRN Rotary actuators

Compact design
Durable construction
Long maintenance-free life
High output torque/weight ratio
Wide choice of torques available (up to 247 Nm)
Range of mounting option, hydro-cushioning and position sensors

Catalogue No : **PDE2502TCUK-ca**



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Hydraulic clamp

Single acting cylinders with built-in hydro-pneumatic intensifier
Compact size for large forces (up to 2700 daN)
Operated using a compressed air supply, no special installation required
Easy adjustment through a fully threaded body
Simple and rapid installation

Catalogue No : **See CD**



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P5G-C Robotic Grippers

4 sizes available
Parallel or angular action
Square jaw carriers
One or two magneto-inductive sensor can be mounted on all sizes to provide signal to monitor gripper opening and closing.

Catalogue No : **PDE2532TCUK-po**



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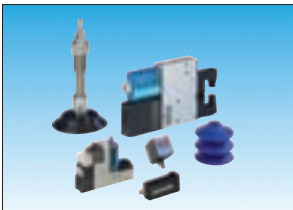
MC-SC Shock absorbers

Compact and heavy duty versions
High energies absorption
Low return force
Long service life
Increases productivity
Reduces maintenance

Catalogue No : **See CD**



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Vacuum

Mini vacuum generators
Compact "air saver" vacuum generators
Multi-function vacuum generators with holding
Valve and rapid release options
Wide range of suction cups
Wide range materials

Catalogue No. **PDE2507TCUK-ab**



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Valves



P2M Moduflex Valves

High flow, compact size.
Mixable valve sizes.
Stand alone valves, modular islands with individual, multiconnector or bus connections.
Integrated selectable internal or external pilot supply and exhaust.
Optional peripheral modules.
Push-in connection.
DIN rail or block mounting.

Catalogue No. **PDE2536TCUK-ca**



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ADEX Valves

Miniature high flow body ported & manifold valves
5/2 and 5/3 configurations
Ultra fast response times
10mm & 15mm body widths
Threaded or push-in connection
Single sub-base or IEM manifolds
Low power solenoids.
Collective wiring system

Catalogue No. **PD0C20001GB01-ev**



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Interface 2000

3/2 or 4/2 configuration
Push-in connections Ø4mm and Ø6mm
High performance 15mm solenoids
Building block type modules with DIN rail mounting
Electrical connection : Cable gland, Sub D25 or Industrial connector
Bus protocols: Interbus S, Profibus DP, Devicenet, ASI.

Catalogue No. **PDE2586TCUK-ev**



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PVL-B10 Valve Island

Compact lightweight, high flow valves
2 x 3/2, 5/2 or 5/3 configuration
Push-in Ø6mm or G1/8 threaded connections
High performance 15mm solenoids
Stacking type modules with DIN rail mounting
Bus protocols: Interbus S, Profibus DP, Devicenet, ASI.

Catalogue No. **PDE2586TCUK-ev**



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PVL-C10 Valve Island

Compact lightweight, high flow valves
2 x 3/2, 5/2 or 5/3 configuration
Push-in Ø8mm or G1/4 threaded connections
High performance 15mm solenoids
Stacking type modules with DIN rail mounting
Bus protocols: Interbus S, Profibus DP, Devicenet, ASI.

Catalogue No. **PDE2586TCUK-ev**



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PS1 Interface Valves

High speed poppet type valves
3/2 & 4/2 Electro-pneumatic modules
Push-in connections Ø4mm & Ø6mm
High performance 15mm solenoids
Building block type modules with DIN rail mounting
Built-in terminal blocks.

Catalogue No. **PD0C00027UK01ev**



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PVL Inline and Stackable Valves

3 sizes: M5, G1/8 or G1/4 versions
High flow compact valves
Ultra light weight
Inline stand alone or stackable versions
Push-in or threaded connections
Low consumption solenoids.
DIN rail or block mounting.

Catalogue No. **PD0C00028UK01ev**



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B Valves

High performance industrial valves
G1/8 or G1/4 body ported
5/2 and 5/3 configurations
All metal rugged construction
Wear Compensating Seal system
IEM manifolds
Low power solenoids.

Catalogue No. **PDE2582TCUK-ca**



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P2L Viking Xtreme Valves

4 sizes: G1/8, G1/4, G3/8 and G1/2.
Wide operating temperature range
Compact design with good corrosion resistance.
Wide range of 5/2 and 5/3 versions.
High and low temperature versions available for transport applications.

Catalogue No. **PDE2569TCUK-ca**



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Isomax Valves - ISO 15407 / ISO 5599

Size 1, 2 and 3 ISO 5599-1
Size 01 and 02 (26 and 18 mm) ISO 15407-1
Ceramic technology for long live operation
From vacuum up to 12 bar applications
Internal or external pilot supply with same valves
Pressure supply possible on exhaust port

Catalogue No. **PDE2589TCUK-ca**



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ISYS Valves - ISO 15407 / ISO 5599

Size 1, 2 and 3 ISO 5599-1 / 2
Size 01 and 02 ISO 15407-1 / 2
Excellent reliability, long life in excess of 30 million operations.
Complete range, plug-in and non-plug-in
WCS Spool technology

Catalogue No. **PDE2589TCUK-ca**



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P2V Flowstar Valves - ISO 15407-1

Compact high flow design
To VDMA 24563, ISO 15407-1 standard
5/2 & 5/3 configurations
18mm & 26mm body widths
Single sub-base or manifold mounted
Air pilot and solenoid actuators
Suitable for Food Industry applications.

Catalogue No. **9127007212GB-ul**



Valves



PVD Everdure Ceramic Valves

Available in 3 sizes
4/2 Directional control valves
3/2 dump valves & 2/2 slow start valves
Stand alone or manifolds.
Built-in manual override
Ceramic slide provides extremely long life
DIN rail mounting.

Catalogue No. **See CD**



Midget Spool Valves

G1/8 body ported
Rugged die cast body
3/2 & 5/2 configurations
Stainless steel spool
Viton body seals as standard
Integral mounting holes
Manual, mechanical and automatic actuators.

Catalogue No. **See CD**



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Intermediate Spool Valves

G1/4 body ported
Rugged die cast body
3/2, 5/2 & 5/3 configurations
Stainless steel spool
Viton body seals as standard
Integral mounting holes
Manual, mechanical and automatic actuators.

Catalogue No. **See CD**



PXB - Push Buttons

Facia mounted operators
3/2 NO or NC versions
Pneumatic valves combinable with electrical switches
Modular construction
Wide choice of actuators.

Catalogue No. **PDE2587TCUK-ev**



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VA Series Heavy Duty Valves

G1/8 Body ported valves for heavy duty applications
3/2, 5/2 & 5/3 configurations
Rugged brass bodies with stainless steel spools
Integral mounting holes
Excellent corrosion resistance
Manual, mechanical & air pilot actuators
Suitable for Road transport applications.

Catalogue No. **9127003472GB-ul**



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Mini Poppet Valves

M5 body ported
3/2 NC spring return as standard
Manual and mechanical actuators
Light actuation forces.

Catalogue No. **See CD**





Midget Poppet Valves

G1/8 body ported poppet design
3/2 NC spring return as standard
Manual, mechanical and air pilot actuators
Light actuation forces
Integral mounting holes.

Catalogue No. **See CD**



Heavy Duty Poppet Valves

G3/8 & G1/2 body ported
2/2 & 3/2 NC spring return as standard
High flow poppet design
Manual and mechanical and solenoid actuators
Light actuation forces
Integral mounting holes.

Catalogue No. **See CD**



PXC - Limit Switches

3/2 Nc spring return as standard
Ø4mm, M5 & G1/8 ported versions
Miniature and Compact designs
Wide choice of actuators include levers, rollers
& ultra light whisker types.

Catalogue No. **See CD**



*See page
260 - 261*



VE Heavy Duty Isolator Valves

G1/4, G1/2 & G1 versions
2/2 or 3/2 option
Inline installation
High flow
Suitable as a remotely controlled main
shut off valve.
Air or solenoid pilot

Catalogue No. **See CD**



*See page
267 - 268*



LV Series Lockout Valves

G1/4 - G1 Ported emergency shut-off valves
High flow G1 exhaust port
Manually operated
High visibility, rugged aluminium body
Detented spool with padlock 'lockout' facility.

Catalogue No. **See CD**



*See page
297*



VFQ Soft Start Dump Valves

3/2, G1/2 shut-off valve
Incorporates soft start function
Inline installation
High flow
Adjustable soft-start orifice
Suitable as a remotely controlled main shut off
valve.

Catalogue No. **See CD**





Ball Valves and Sliding Sleeve Valves

Ball valves

3 distinct series
Vented and non vented
Bubble tight shut-off
Positive 90 ° movement
Wide variety of fluids

Sliding sleeve valves

Linear sleeve operated
3/2 valve
Simple airline isolation
Compact
Minimum space for valve operation

Catalogue No. **PDE2566TCUK-ev**



See page
318



Logic Control

Complete range of logic processing modules
Stand alone or stackable and combinable units
Ultra fast response times
Visual indication
DIN rail mounting.

Catalogue No. **See CD**



See page
262 - 266



Two hand control units

Ergonomic design
Robust polymer or metal enclosure
Meets requirements for protection against accidental operation and tampering
Metal enclosure features a wrist rest bar which prevents illness due to repetitive actions
Conforms to EN574 and EN954-1 requirements

Catalogue No. **See CD**



See page
269 - 270



Quick Exhaust and Shuttle Valves

Quick exhaust valves increase piston speeds
Extremely low operating differential
'Stiction' free operation
Shuttle valves allow two separate signals to be applied to one air pilot
Compact designs
low operating pressure.

Catalogue No. **PDE2566TCUK-ev**



*See page
312 - 313*



Inline Flow Regulators

Wide choice of push-in or threaded connections
Provides fine control of cylinder speeds
Panel mounting versions
Hand, screw driver or allen key adjustment.

Catalogue No. **PDE2566TCUK-ev**



*See page
307 - 311*



Banjo Flow Regulators

Wide choice of push-in or threaded connections
Provides fine control of cylinder speeds
Fit directly to cylinder ports
Hand, screw driver or allen key adjustment.

Catalogue No. **PDE2566TCUK-ev**



*See page
307 - 311*



Plug-in Sensors

Provides pneumatic or electrical signal
Reed switch or solid state sensors
Exhaust back pressure sensors
Fit directly to cylinder ports
Ø4mm push-in connection.

Catalogue No. **PDE2566TCUK-ev**



*See page
307 - 311*



Blockers

Threaded or push-in ports
Fit directly to cylinder ports
Wide range of sizes
Single or multifunction options.

Catalogue No. **PDE2566TCUK-ev**



*See page
307 - 311*



Moduflex FRLs - 40 / 60 / 80 Series

Fully modular FRL series
 Port sizes $G^{1/8}$ & $G^{1/4}$ (40mm body)
 Port sizes $G^{3/8}$ & $G^{1/2}$ (60mm body)
 Port sizes $G^{1/2}$, $G^{3/4}$ & G^{1} (80mm body)
 Ultra modern design
 Assemble combinations without tools
 Marine grade aluminium construction
 Catalogue No. **PDE2501TCUK-ca**



See page
272 - 290



Electronic Pressure Regulators

Very fast response times
 Accurate output pressure
 Micro parameter settings
 Selectable I/O parameters
 Quick, full flow exhaust.
 LED display indicates output pressure
 Auto enable function
 Catalogue No. **PDE2534TCUK-ab**



See page
291 - 293



Prep-Air II Miniature FRLs

Compact body ported units.
 Port sizes $G^{1/8}$ and $G^{1/4}$.
 Unique deflector plate ensuring maximum water and particulate removal.
 Solid control piston with lip seal for extended life.
 Proportional oil delivery over a wide range of air flows.
 Catalogue No. **PDE2591TCUK-ca**



See page
294 - 296



Standard Series FRLs

Individual body ported and mounted units
 High flow with minimum pressure drop
 Lubricator fillable under pressure
 Catalogue No. **See CD**



See page
299 - 301



Stainless Steel FRLs

316 Stainless steel FRL design to withstand harsh, corrosive environments
 Suitable for Marine & Offshore applications
 Chemical / Petroleum and process industries
 Coalescing filters are designed for removing oil and water aerosols down to 0.01μ
 Catalogue No. **PDE2504TCUK-ca**



See page
302 - 304



Precision Pressure Regulators

High repeatability
 High relief capacity on R220 model
 High flow capacity on R230 model
 Catalogue No. **PDE2542TCUK-ca**



See page
305 - 306



Push-in Fittings and Tubing

3 Distinct range of push-in pneumatic fittings
Prestolok Micro, ultra small lightweight range
Prestolok 2, thermoplastic compact range
Prestolok, nickel plated brass body range
 Nylon and polyurethane tubing
 Ready to use 25M & 100M boxes
 For use with push-in & compression fittings.

Catalogue No. **2190GB-ca**



*See page
321 - 325*



Quick Acting Couplers

4 complete ranges of pneumatic coupling
 Wide range of self sealing couplers & adaptors

Schrader Original
 InterCheck Series (Industrial Interchange Profile)
 Mini Series
 Euro Series (Industrial Interchange Profile).

Catalogue No. **2167GB-ca**



*See page
319*



Accessories and Silencers

M5 - G1 sizes
 All metal or lightweight plastic silencers
 Exhaust flow restrictor-mufflers
 Excellent noise level reduction
 Exhaust air reclassifiers, oil aerosol removal
 Modular or stand alone units.

Catalogue No. **PDE2566TCUK-ev**



*See page
316 - 317*



Blow Guns

Brass and aluminium versions
 6 different nozzle types

Catalogue No. **PDE2566TCUK-ev**



*See page
327*

Actuators



P1D



P1A

P1V-S



P1M

P1G



Air Bellows

Force Guide

Cylinder bore mm	Serie		Stroke	Bore mm	Piston rod mm	Area cm2	Max theoretical force in N									
							1.0 bar	2.0 bar	3.0 bar	4.0 bar	5.0 bar	6.0 bar	7.0 bar	8.0 bar	9.0 bar	10.0 bar
10/4	P1A P1S	Double acting	+	10	4	0.8	8	15	23	31	39	46	54	62	69	77
			-	10	4	0.7	6	13	19	26	32	39	45	52	58	65
12/5	C05	Double acting	+	12	5	1.1	11	22	33	44	55	67	78	89	100	111
			-	12	5	0.9	9	18	28	37	46	55	64	73	83	92
12/6	P1A P1J P1M P1S	Double acting	+	12	6	1.1	11	22	33	44	55	67	78	89	100	111
			-	12	6	0.8	8	17	25	33	42	50	58	67	75	83
16	P1T	Double acting	+/-	16	-	2.0	20	39	59	79	99	118	138	158	178	197
16/6	P1A P1S	Double acting	+	16	6	2.0	20	39	59	79	99	118	138	158	178	197
			-	16	6	1.7	17	34	51	68	85	102	119	136	153	170
16/8	P1M	Double acting	+	16	8	2.0	20	39	59	79	99	118	138	158	178	197
			-	16	8	1.5	15	30	44	59	74	89	104	118	133	148
20/8	P1A P1S	Double acting	+	20	8	3.1	31	62	92	123	154	185	216	247	277	308
			-	20	8	2.6	26	52	78	104	129	155	181	207	233	259
20/10	C05 P1J P1M P5T	Double acting	+	20	10	3.1	31	62	92	123	154	185	216	247	277	308
			-	20	10	2.4	23	46	69	92	116	139	162	185	208	231
25	P1T	Double acting Rodless	+/-	25	-	4.9	48	96	144	193	241	289	337	385	433	482
25/10	P1A P1J P1M P1S P5T	Double acting	+	25	10	4.9	48	96	144	193	241	289	337	385	433	482
			-	25	10	4.1	40	81	121	162	202	243	283	324	364	405
32	P1T	Double acting	+/-	32	-	8.0	79	158	237	316	394	473	552	631	710	789
32/12	C05 P1D P1J P1M P1S	Double acting	+	32	12	8.0	79	158	237	316	394	473	552	631	710	789
			-	32	12	6.9	68	136	203	271	339	407	475	542	610	678
32/16	P5T	Double acting	+	32	16	8.0	79	158	237	316	394	473	552	631	710	789
			-	32	16	6.0	59	118	178	237	296	355	414	473	533	592
40	P1T	Double acting Rodless	+/-	40	-	12.6	123	247	370	493	616	740	863	986	1109	1233

Cylinder bore mm	Serie		Stroke	Bore mm	Piston rod mm	Area cm2	Max theoretical force in N									
							1.0 bar	2.0 bar	3.0 bar	4.0 bar	5.0 bar	6.0 bar	7.0 bar	8.0 bar	9.0 bar	10.0 bar
40/16	P1D	Dubbelverkande	+	40	16	12.6	126	251	377	503	628	754	880	1005	1131	1257
			-	40	16	10.6	106	212	318	424	530	636	742	848	954	1060
40/12	P1J	Double acting	+	40	12	12.6	123	247	370	493	616	740	863	986	1109	1233
			-	40	12	11.4	112	224	337	449	561	673	785	897	1010	1122
40/16	P1M	Double acting	+	40	16	12.6	123	247	370	493	616	740	863	986	1109	1233
			-	40	16	10.6	104	207	311	414	518	621	725	828	932	1036
50	P1T	Double acting Rodless	+/-	50	-	19.6	193	385	578	770	963	1156	1348	1541	1734	1926
50/16	C05 P1J	Double acting	+	50	16	19.6	193	385	578	770	963	1156	1348	1541	1734	1926
			-	50	16	17.6	173	346	519	692	865	1037	1210	1383	1556	1729
50/20	P1D	Double acting	+	50	20	19.6	193	385	578	770	963	1156	1348	1541	1734	1926
	P1M		-	50	20	16.5	162	324	485	647	809	971	1133	1295	1456	1618
	P1S															
	P5T															
63	P1T	Double acting Rodless	+/-	63	-	31.2	306	612	917	1223	1529	1835	2141	2446	2752	3058
63/16	C05 P1J	Double acting	+	63	16	31.2	306	612	917	1223	1529	1835	2141	2446	2752	3058
			-	63	16	29.2	286	572	858	1144	1430	1717	2003	2289	2575	2861
63/20	P1D	Double acting	+	63	20	31.2	306	612	917	1223	1529	1835	2141	2446	2752	3058
	P1M		-	63	20	28.0	275	550	825	1100	1375	1650	1925	2200	2475	2750
	P1S															
	P5T															
80/25	P1D P1M P1S P5T	Double acting	+	80	25	50.3	493	986	1479	1972	2466	2959	3452	3945	4438	4931
			-	80	25	45.4	445	890	1335	1780	2225	2670	3115	3560	4005	4450
84/20	C0D300	Double acting	+	84	20	55.4	544	1087	1631	2175	2718	3262	3806	4349	4893	5436
			-	84	20	52.3	513	1026	1539	2051	2564	3077	3590	4103	4616	5128
100/25	P1D P1M P1S P5T	Double acting	+	100	25	78.5	770	1541	2311	3082	3852	4623	5393	6164	6934	7705
			-	100	25	73.6	722	1445	2167	2889	3612	4334	5056	5779	6501	7223
114/20	C0D600	Double acting	+	114	20	101.9	1000	2000	3000	4000	5000	6000	7001	8001	9001	10001
			-	114	20	98.8	969	1939	2908	3877	4846	5816	6785	7754	8724	9693
125/32	P1D P1S	Double acting	+	125	32	122.7	1204	2408	3612	4815	6019	7223	8427	9631	10835	12039
			-	125	32	114.7	1125	2250	3375	4500	5625	6750	7875	9000	10125	11250
161/25	C0D1200	Double acting	+	161	25	203.9	2000	4000	6000	8000	10000	12000	14000	16000	18000	20000
			-	161	25	199.0	1952	3904	5856	7808	9759	11711	13663	15615	17567	19519
160/40	P1E	Double acting	+	160	40	201.1	1972	3945	5917	7890	9862	11835	13807	15779	17752	19724
200/40	P1E	Double acting	+	200	40	314.2	3082	6164	9246	12328	15410	18491	21573	24655	27737	30819
250/28	C0P2500	Double acting	+	250	28	490.9	4815	9631	14446	19262	24077	28893	33708	38524	43339	48155
			-	250	28	484.7	4755	9510	14265	19020	23776	28531	33286	38041	42796	47551

+ = Outward stroke
- = Return stroke

Note!
Select a theoretical force 50-100% larger than the force required

The Force Guide is only for double acting cylinders, please look into the technical catalogue for every individual single acting cylinder to see the forces.

Note! For all single acting cylinders you have to reduce the force in the table with the spring force to get the theoretical force.
The spring force is not calculated to create any work, it is only to take the piston rod into the cylinder

Options Guide

Cylinder Series	Description	Bore in mm														Page Number		
			Max stroke in mm	Double acting	Single acting cylinders with spring return for retract stroke (- stroke)	Single acting cylinders with spring return for advance stroke (+ stroke)	Low temp version	High temp version	Thru piston rod	Guided	Magnetic piston	Bumpers	Adjustable cushioning	Flexible porting	Clean		Rod lock	Built on valve
P1G	Cartridge cylinder	6, 10, 16		15														27
C05	Pancake cylinder	8, 12, 20, 32, 50, 63	25	10														29
C0P	Thrust cylinder	59, 81, 233	80	10														31
C0D	Thrust cylinder	81, 114, 161	50	50														31
P1J	Compact cylinder	12, 20, 25, 32, 40, 50, 63	100	50														34
P1M	Short build cylinder	12, 16, 20, 25, 32, 40, 50, 63, 80, 100	500	25	25													39
P1K	Profile cylinder	32,40,50, 63, 80, 100, 125	2800															48
P5T	Compact cylinder with guidance	16, 20, 25, 32, 40, 50, 63, 80, 100	200															87
P1A	Mini ISO 6432	10, 12, 16, 20, 25	1000	80	80													55
P1S	Stainless steel cylinders ISO 6432	10, 12, 16, 20, 25	1000	80	80													61
P1S	Stainless steel cylinders ISO 6431	32, 40, 50, 63, 80, 100, 125	1000															66
P1D	ISO/VDMA cylinder	32, 40, 50, 63, 80, 100, 125	2800															74
P1E	ISO/VDMA cylinder	160, 200	2500															85

Single acting, spring return cylinders ideal for applications where space is at a premium. The threaded body makes installation simple.

- Non - lube operation
- Corrosion resistant design
- Integral mounting
- Compact construction
- Single acting as standard

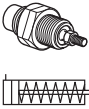


Operating information

Working pressure 2 - 7 bar
 working temperature -20 °C to +80 °C
 Supplied complete with 1 rod nut and 2 fixing nuts

For technical information see CD

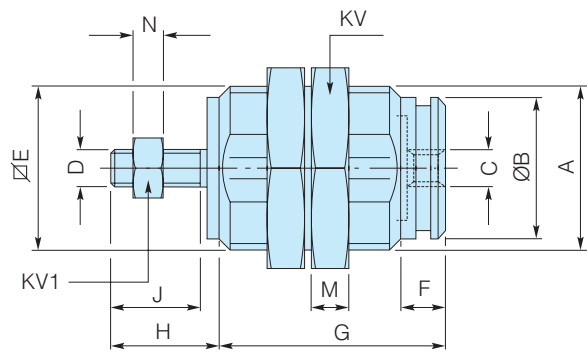
Single acting push type

Symbol	Cyl. bore mm	Rod thread mm	Body thread mm	Spring force Max N	Min N	Port size	Stroke mm	Order code
	6	M3	M10x1,0	3,8	1,2	M5	5	P1G-S006SS-0005
							10	P1G-S006SS-0010
							15	P1G-S006SS-0015
	10	M4	M15x1,5	7,3	2,7	M5	5	P1G-S010SS-0005
							10	P1G-S010SS-0010
							15	P1G-S010SS-0015
	16	M5	M22x1,5	6,6	3,3	M5	5	P1G-S016SS-0005
							10	P1G-S016SS-0010
							15	P1G-S016SS-0015

The spring forces in single acting cylinders are sufficient to return the piston without load.

 Indicates stocked product.

Dimensions (mm)



Cylinder bore	A	ØB	C	D	E	F	G			H	J	KV	KV1	M	N
	mm	mm	mm	mm	mm	mm	5 ¹⁾ mm	10 ¹⁾ mm	15 ¹⁾ mm	mm	mm	mm	mm	mm	mm
6	M10x1	8,5	M5	M3x0,5	9	5	19,5	26,5	33,5	8	8	14	5,5	3	2,4
10	M15x1,5	12	M5	M4x0,7	14	7	23	29,5	36,5	10,5	10,5	19	7	4	3,2
16	M22x1,5	19	M5	M5x0,8	20	6	27	32	37	13	12	27	8	5	4

1) Stroke length in mm



Caution
 Avoid side loads on the piston rod
 Avoid loading the piston rod during retraction
 Do not operate the cylinders with excessive inertia.

Compact short stroke cylinders available in single as well as double acting versions. Ideally suited for clamping and locking operations. The compact design with mounting holes through the cylinder body makes the unit easy to install in confined spaces. The main body is machined from one piece thus providing an easy to clean unit. Fitted with stainless steel piston rod as standard for corrosion resistance.

- Short stroke cylinders providing high clamping forces
- Compact dimensions for confined spaces
- Single and double acting versions
- Simple installation and mounting



Operating information

Working pressure: Max 10 bar
Working temperature: -20°C to +70°C

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

For technical information see CD

C05 Double acting cylinders

Cyl. bore mm	Stroke mm	Port	Order code
12	10	M5	C05-12-5-10
20	10	M5	C05-20-10-10
32	10	G1/8	C05-32-12-10
32	25	G1/8	C05-32-12-25
50	25	G1/4	C05-50-16-25
63	25	G1/4	C05-63-16-25

C05S Single acting cylinders

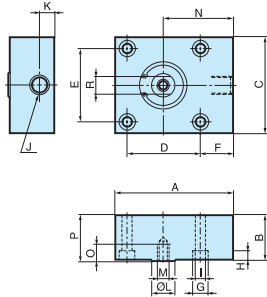
Cyl. bore mm	Stroke mm	Port	Order code
8	4	M5	C05S-8-4-4
12	4	M5	C05S-12-5-4
20	4	G1/8	C05S-20-10-4
32	5	G1/8	C05S-32-12-5
50	10	G1/4	C05S-50-16-10
63	10	G1/4	C05S-63-16-10

The spring forces in single acting cylinders are sufficient to return the piston without load.

 Indicates stocked product.

Dimensions (mm), basic cylinder

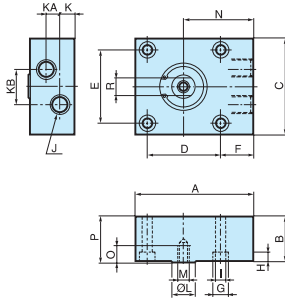
Single acting



Type	A	B	C	D	E	F	G	H	I	J	K	KA	KB	L
C05S-8-4-4	20	16	18	0*	11	5,5	6	3,4	3,4	M5	5,0	-	-	4
C05S-12-5-4	25	16	20	0*	13	7,0	6	3,4	3,4	M5	6,0	-	-	5
C05S-20-10-4	40	20	32	0*	20	9,0	10	5,0	5,5	G1/8	9,5	-	-	10
C05S-32-12-5	55	26	45	0*	32	14,0	10	5,0	5,5	G1/8	9,5	-	-	12
C05S-50-16-10	80	30	65	50	50	22,5	11	6,5	6,5	G1/4	11,0	-	-	16
C05S-63-16-10	90	35	80	62	62	19,0	15	9,0	9,0	G1/4	11,0	-	-	16

Type	M	N	O	P	R
C05S-8-4-4	-	13,5	-	17	-
C05S-12-5-4	-	15,0	-	17	-
C05S-20-10-4	M5	24,0	8	21	-
C05S-32-12-5	M6	32,0	12	27	9
C05S-50-16-10	M8	47,5	12	31	14
C05S-63-16-10	M8	50,0	14	36	14

Double acting



Type	A	B	C	D	E	F	G	H	I	J	K	KA	KB	L
C05-12-5-10	25	27	20	0*	13	7,0	6	3,4	3,4	M5	6,0	13,0	3	5
C05-20-10-10	40	30	32	0*	20	9,0	10	5,0	5,5	M5	6,0	16,0	6	10
C05-32-12-10	55	36	45	0*	32	14,0	10	5,0	5,5	G1/8	9,5	16,5	14	12
C05-32-12-25	55	51	45	0*	32	14,0	10	5,0	5,5	G1/8	9,5	31,5	0**	12
C05-50-16-25	80	50	65	50	50	22,5	11	6,5	6,5	G1/4	11,0	28,0	0**	16
C05-63-16-25	90	55	80	62	62	19,0	15	9,0	9,0	G1/4	11,0	33,0	0**	16

Type	M	N	O	p	R
C05-12-5-10	-	16,0	-	28	-
C05-20-10-10	M5	24,0	8	31	-
C05-32-12-10	M6	32,0	12	37	9
C05-32-12-25	M6	32,0	12	52	9
C05-50-16-25	M8	47,5	12	51	14
C05-63-16-25	M8	50,0	14	56	14

* Only two mounting holes (F).

** Connections in-line.

The thrust cylinders are linear actuators, designed for a high force to size ratio. This makes the cylinder ideal to use for clamping, riveting, punching and similar applications where a high force is required.

- Thrust cylinders provide large forces
- Compact dimensions
- COD, diaphragm type
- COP, piston type
- Available in single and double acting versions



Operating information

Working pressure: Max 8 bar
Working temperature: -20°C to +70°C

Stainless steel piston rod
Piston rod according to ISO 4395



Compressed air cylinders, types COD and COP should not be used in vertical applications without external stop.

For technical information see CD

COD - Double acting

Force at 6 bar, N	Port size	Stroke mm	Order code
3000	G1/4	40	COD300-40
6000	G1/4	50	COD600-50
12000	G1/2	50	COD1200-50
25000	G1/2	60	COP2500-60
25000	G1/2	80	COP2500-80

COP - Single acting

Force at 6 bar, N	Spring N force		Port size	Stroke mm	Order code
	Max N	Min N			
1600	314	128	G1/4	50	COP160-50S
1600	314	128	G1/4	80	COP160-80S
3000	314	128	G1/4	50	COP300-50S
3000	314	128	G1/4	80	COP300-80S
3000	294	98	G1/4	40	COD300-40S
6000	638	98	G1/4	50	COD600-50S
12000	981	235	G1/2	50	COD1200-50S
25000	2700	883	G1/2	60	COP2500-60S
25000	2700	883	G1/2	100	COP2500-100S

The spring forces in single acting cylinders are sufficient to return the piston rod without load

Accessories

Neck mounting nut

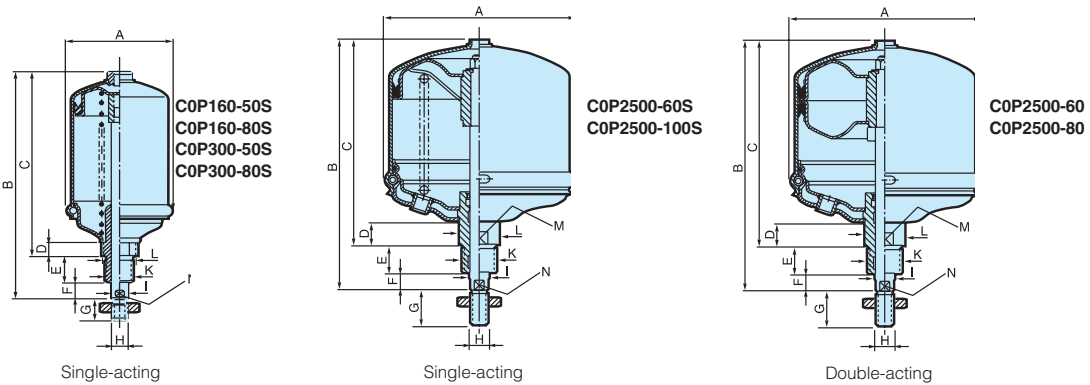
	Lock nut thread	For cylinder	Order code
	M24x2	COD300	9141100000
	M36x3	COD600/1200	9141100100
	M48x3	COP2500	9141100200
	M24x3	COP160/300	9141100300

 Indicates stocked product.

Piston rod nut (one nut is included)

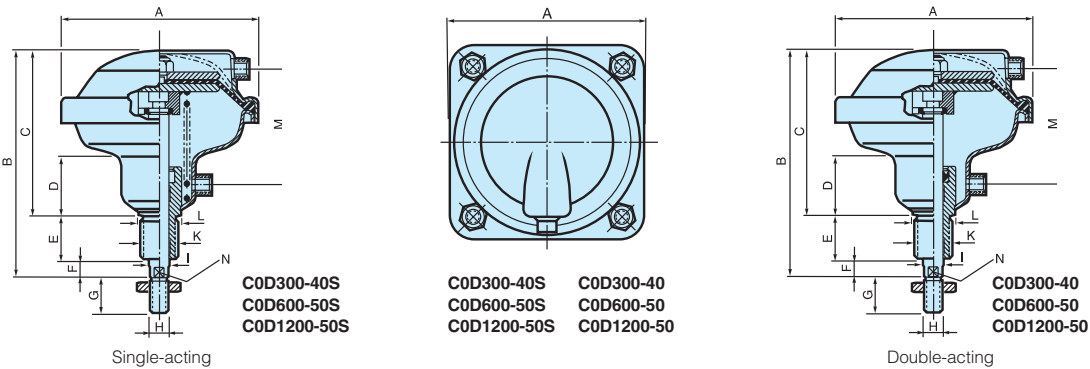
	Piston rod nut thread	For cylinder	Order code
	M12	COP160/300 and COD300	0266211200
	M16	COD600	0266211400
	M20	COD1200	0266211600
	M24	COP2500	0266211800

Dimensions (mm), piston type



Type	Connection thread	A	B	C	D	E	F	G	H	I Ø	K	L Ø	M	N
COP160-50S	G1/4	66	192	151	18	30	11	24	M12x1,75	14	M24x3	30	30	12
COP160-80S	G1/4	66	222	181	18	30	11	24	M12x1,75	14	M24x3	30	30	12
COP300-50S	G1/4	93	192	151	18	30	11	24	M12x1,75	14	M24x3	30	30	12
COP300-80S	G1/4	93	222	181	18	30	11	24	M12x1,75	14	M24x3	30	30	12
COP2500-60S	G1/2	268	345	285	33	40	20	48	M24x3	28	M48x3	56	50	25
COP2500-100S	G1/2	268	385	325	33	40	20	48	M24x3	28	M48x3	56	50	25
COP2500-60	G1/2	268	345	285	33	40	20	48	M24x3	28	M48x3	56	50	25
COP2500-80	G1/2	268	385	325	33	40	20	48	M24x3	28	M48x3	56	50	25

Dimensions (mm), diaphragm type



Type	Connection thread	A	B	C	D	E	F	G	H	I Ø	K	L Ø	M	N
COD300-40S	G1/4	150	183	131	48	38	14	24	M12x1,75	16	M24x2	30	90	13
COD300-40	G1/4	150	183	131	48	38	14	24	M12x1,75	16	M24x2	30	90	13
COD600-50S	G1/4	195	212	154	55	38	20	32	M16x2	20	M36x3	43	107	17
COD600-50	G1/4	195	212	154	55	38	20	32	M16x2	20	M36x3	43	107	17
COD1200-50S	G1/2	261	243	178	58	45	20	40	M20x2,5	25	M36x3	43	117	22
COD1200-50	G1/2	261	243	178	58	45	20	40	M20x2,5	25	M36x3	43	117	22

Press stand for thrust cylinders

A simple press for efficient mounting and pressing can easily be built by screwing the thrust cylinders into the threaded holes in the very stable and strong steel press stand. The stand is available in two versions with different fastening threads for the cylinders.

The top plate has two different threads, and can be rotated through 180 degrees to present the correct thread for nose fitting of the cylinders.

The sub-base is fitted with a T-track for easy mounting of accessories. It also has two through holes for simple and secure fitting to a work bench.

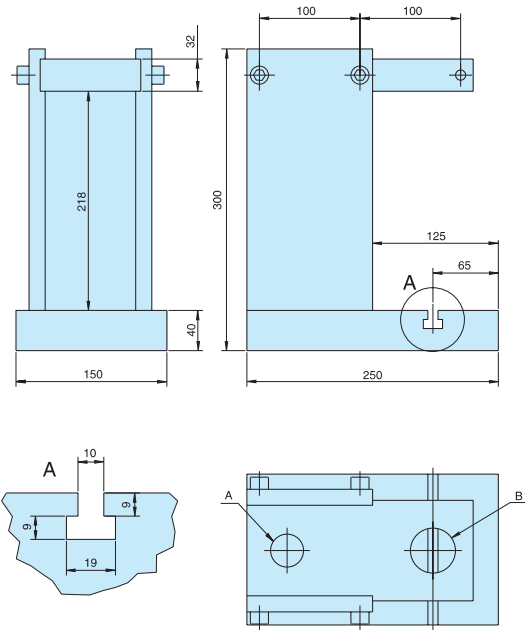


NOTE! Remember that an approved two-handed press control must be used with the cylinders and the press stand to prevent crush injuries. We recommend the use of our type PXP two-handed press control. It is available in a number of versions, and is simple, ergonomic and safe to incorporate in the press stand. It meets the requirements of safety standards EN574 and EN954-1.

For more information, see our website:
www.parker.com/euro_pneumatic

Description	Threads A/B	Weight kg	Order No.
Press stand for C0P160 / C0P300 / C0D300	M24x2/M24x3	24	C0P-C0D-P01
Press stand for C0D600 / C0D1200 / C0P2500	M36x3/M48x3	24	C0P-C0D-P02

Dimensions



The P1J cylinder is ideal for applications where you need compact dimensions and high overall performance. The versatile P1J cylinder range provides a long trouble-free operation in a variety of applications.

- Compact and versatile
- Magnetic piston for direct fit with electronic controls
- Fit flush global sensor range with many functions
- Patent press fit end cover for short axial length
- Choose from our wide range of double-acting, single-acting and double-acting with guide rod



Operating information

Working pressure: Max 10 bar
Permissible fluid: Air, with or without lubrication
Standard working temperature: -20°C to +80°C

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

For technical information see CD

Double acting - Standard seals - Female threaded piston rod

Ø12mm - (M5)

Stroke mm	Order code
10	P1J-S012DS-0010
15	P1J-S012DS-0015
20	P1J-S012DS-0020
25	P1J-S012DS-0025

Ø20mm - (M5)

Stroke mm	Order code
10	P1J-S020DS-0010
15	P1J-S020DS-0015
20	P1J-S020DS-0020
25	P1J-S020DS-0025
30	P1J-S020DS-0030
40	P1J-S020DS-0040
50	P1J-S020DS-0050

Ø25mm - (M5)

Stroke mm	Order code
10	P1J-S025DS-0010
15	P1J-S025DS-0015
20	P1J-S025DS-0020
25	P1J-S025DS-0025
30	P1J-S025DS-0030
40	P1J-S025DS-0040
50	P1J-S025DS-0050

Ø32mm - (G1/8)

Stroke mm	Order code
10	P1J-S032DS-0010
15	P1J-S032DS-0015
20	P1J-S032DS-0020
25	P1J-S032DS-0025
30	P1J-S032DS-0030
40	P1J-S032DS-0040
50	P1J-S032DS-0050
80	P1J-S032DS-0080

Ø40mm - (G1/8)

Stroke mm	Order code
10	P1J-S040DS-0010
15	P1J-S040DS-0015
20	P1J-S040DS-0020
25	P1J-S040DS-0025
30	P1J-S040DS-0030
40	P1J-S040DS-0040
50	P1J-S040DS-0050
80	P1J-S040DS-0080

Ø50mm - (G1/8)

Stroke mm	Order code
10	P1J-S050DS-0010
15	P1J-S050DS-0015
20	P1J-S050DS-0020
25	P1J-S050DS-0025
30	P1J-S050DS-0030
40	P1J-S050DS-0040
50	P1J-S050DS-0050
80	P1J-S050DS-0080

Ø63mm - (G1/8)

Stroke mm	Order code
10	P1J-S063DS-0010
15	P1J-S063DS-0015
20	P1J-S063DS-0020
25	P1J-S063DS-0025
30	P1J-S063DS-0030
40	P1J-S063DS-0040
50	P1J-S063DS-0050
80	P1J-S063DS-0080
100	P1J-S063DS-0100

 Indicates stocked product.

Single acting - Standard seals - Female threaded piston rod

Ø12mm - (M5)

Stroke mm	Order code
10	P1J-S012SS-0010
15	P1J-S012SS-0015

Ø20mm - (M5)

Stroke mm	Order code
5	P1J-S020SS-0005
10	P1J-S020SS-0010
15	P1J-S020SS-0015
20	P1J-S020SS-0020
25	P1J-S020SS-0025
30	P1J-S020SS-0030

Ø25mm - (M5)

Stroke mm	Order code
5	P1J-S025SS-0005
10	P1J-S025SS-0010
15	P1J-S025SS-0015
20	P1J-S025SS-0020
25	P1J-S025SS-0025
30	P1J-S025SS-0030
40	P1J-S025SS-0040
50	P1J-S025SS-0050

Ø32mm - (G1/8)

Stroke mm	Order code
5	P1J-S032SS-0005
10	P1J-S032SS-0010
15	P1J-S032SS-0015
20	P1J-S032SS-0020
25	P1J-S032SS-0025
30	P1J-S032SS-0030
40	P1J-S032SS-0040
50	P1J-S032SS-0050

Ø40mm - (G1/8)

Stroke mm	Order code
5	P1J-S040SS-0005
10	P1J-S040SS-0010
15	P1J-S040SS-0015
20	P1J-S040SS-0020
25	P1J-S040SS-0025
30	P1J-S040SS-0030
40	P1J-S040SS-0040
50	P1J-S040SS-0050

Ø50mm - (G1/8)

Stroke mm	Order code
5	P1J-S050SS-0005
10	P1J-S050SS-0010
15	P1J-S050SS-0015
20	P1J-S050SS-0020
25	P1J-S050SS-0025
30	P1J-S050SS-0030
40	P1J-S050SS-0040
50	P1J-S050SS-0050

Ø63mm - (G1/8)

Stroke mm	Order code
5	P1J-S063SS-0005
10	P1J-S063SS-0010
15	P1J-S063SS-0015
20	P1J-S063SS-0020
25	P1J-S063SS-0025
30	P1J-S063SS-0030
40	P1J-S063SS-0040
50	P1J-S063SS-0050

The spring forces in single acting cylinders are sufficient to return the piston without load.

Double acting - Guided

These cylinders feature twin guide rods connected to the piston rod by a flange plate. These are ideal for clamping and moving applications where turning of the piston rod must be avoided or side load is present.



Double Acting - Guided

Ø20mm - (M5)

Stroke mm	Order code
5	P1J-G020DS-0005
10	P1J-G020DS-0010
15	P1J-G020DS-0015
20	P1J-G020DS-0020
25	P1J-G020DS-0025
30	P1J-G020DS-0030
40	P1J-G020DS-0040
50	P1J-G020DS-0050

Ø25mm - (M5)

Stroke mm	Order code
5	P1J-G025DS-0005
10	P1J-G025DS-0010
15	P1J-G025DS-0015
20	P1J-G025DS-0020
25	P1J-G025DS-0025
30	P1J-G025DS-0030
40	P1J-G025DS-0040
50	P1J-G025DS-0050

Ø32mm - (G1/8)

Stroke mm	Order code
5	P1J-G032DS-0005
10	P1J-G032DS-0010
15	P1J-G032DS-0015
20	P1J-G032DS-0020
25	P1J-G032DS-0025
30	P1J-G032DS-0030
40	P1J-G032DS-0040
50	P1J-G032DS-0050
80	P1J-G032DS-0080

Ø40mm - (G1/8)

Stroke mm	Order code
5	P1J-G040DS-0005
10	P1J-G040DS-0010
15	P1J-G040DS-0015
20	P1J-G040DS-0020
25	P1J-G040DS-0025
30	P1J-G040DS-0030
40	P1J-G040DS-0040
50	P1J-G040DS-0050
80	P1J-G040DS-0080

Ø50mm - (G1/8)

Stroke mm	Order code
5	P1J-G050DS-0005
10	P1J-G050DS-0010
15	P1J-G050DS-0015
20	P1J-G050DS-0020
25	P1J-G050DS-0025
30	P1J-G050DS-0030
40	P1J-G050DS-0040
50	P1J-G050DS-0050
80	P1J-G050DS-0080

Ø63mm - (G1/8)

Stroke mm	Order code
5	P1J-G063DS-0005
10	P1J-G063DS-0010
15	P1J-G063DS-0015
20	P1J-G063DS-0020
25	P1J-G063DS-0025
30	P1J-G063DS-0030
40	P1J-G063DS-0040
50	P1J-G063DS-0050
80	P1J-G063DS-0080
100	P1J-G063DS-0100

 Indicates stocked product.

Cylinder mountings

Flange MF1

Anodised aluminium

	Cyl. dia.	Order code
	12	P1J-4DMB
	20	P1J-4HMB
	25	P1J-4JMB
	32	P1J-4KMB
	40	P1J-4LMB
	50	P1J-4MMB
	63	P1J-4NMB

Foot bracket

Anodised aluminium

	Cyl. dia.	Order code
	12	P1J-4DMF
	20	P1J-4HMF
	25	P1J-4JMF
	32	P1J-4KMF
	40	P1J-4LMF
	50	P1J-4MMF
	63	P1J-4NMF

Piston rod mountings

Clevis *

Galvanised steel

	Cyl. dia.	Order code
	20	P1J-4HRC
	25	P1J-4HRC
	32	P1A-4DRC
	40	P1A-4DRC
	50	P1A-4HRC
	63	P1A-4HRC

Swivel rod eye *

Galvanised steel

	Cyl. dia.	Order code
	12	P1J-4DRS
	20	P1J-4HRS
	25	P1J-4HRS
	32	P1A-4DRS
	40	P1A-4DRS
	50	P1A-4HRS
	63	P1A-4HRS

Male stud kit

Surface treated steel

	Cyl. dia.	Order code
	12	P1J-6DSO
	20	P1J-6HSO
	25	P1J-6HSO
	32	P1J-6KSO
	40	P1J-6KSO
	50	P1J-6MSO
	63	P1J-6MSO

* Used in connection with Male Stud Kit

Sensors

Reed switch sensor

Solid state sensor

3m cable

P8S-DRFLX

P8S-DPFLX

8mm snap-on connector

P8S-DRSHX

P8S-DPSHX

Connecting cables with one connector

The cables have an integral snap-in female connector.

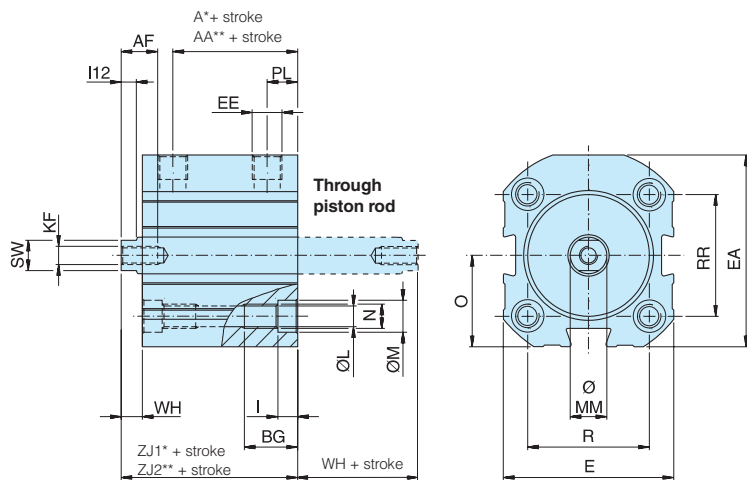


Type of cable	Cable length/connector	Weight kg	Order code
Cables for sensors, complete with female connector			
Cable, Flex PVC	3 m, 8 mm round connector	0,07	9126344341
Cable, Flex PVC	10 m, 8 mm round connector	0,21	9126344342
Cable, Super Flex PVC	3 m, 8 mm round connector	0,07	9126344343
Cable, Super Flex PVC	10 m, 8 mm round connector	0,21	9126344344
Cable, Polyuretan	3 m, 8 mm round connector	0,01	9126344345
Cable, Polyuretan	10 m, 8 mm round connector	0,20	9126344346
Cable, Polyuretan	3 m, M12 connector	0,07	9126344348
Cable, Polyuretan	10 m, M12 connector	0,20	9126344349

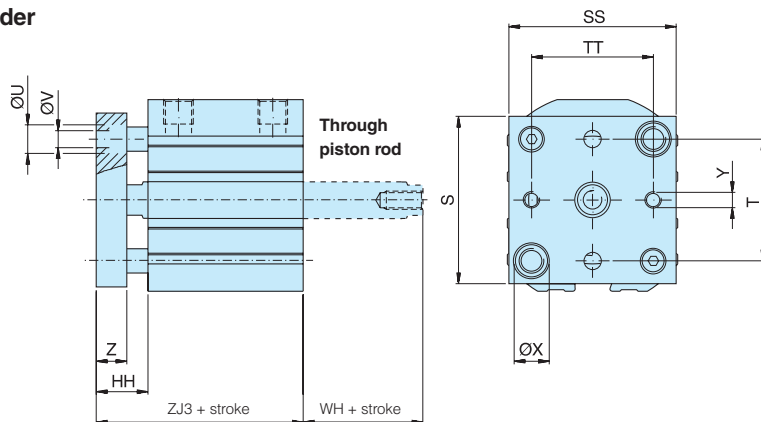
 Indicates stocked product.

Dimensions (mm),

Double and single acting cylinders



Guided cylinder



Cylinder bore	A*	AA**	AF	BG	E	EA	EE	HH	I	KF	L	I12	M	MM	N	O	PL
12	25,0	-	5	9	26	30,0	M5	-	3,5	M3	3,4	3,0	6,1	6	M4	15,0	6,5
20	31,5	-	10	15	33	43,0	M5	14,8	5,5	M5	5,3	4,5	9,2	10	M6	21,5	6,5
25	32,5	47,5	10	15	40	44,5	M5	16,0	5,5	M5	5,3	4,5	9,2	10	M6	22,5	6,5
32	32,6	50,6	12	15	46	54,0	G1/8	15,7	5,5	M6	5,3	5,0	9,2	12	M6	25,5	10,0
40	34,0	52,0	12	18	56	63,0	G1/8	17,0	6,5	M6	6,9	5,0	10,5	12	M8	30,0	10,0
50	38,5	56,5	12	18	66	73,0	G1/8	19,0	6,5	M8	6,9	5,5	10,5	16	M8	35,0	10,0
63	40,0	60,0	12	25	83	87,5	G1/8	20,0	9,0	M8	9,3	5,5	15,0	16	M10	41,5	10,0

Cylinder bore	R	RR	S	SS	SW	T	TT	U	V	WH	X	Y	Z	ZJ1*	ZJ2**	ZJ3
12	13	18	-	-	5	-	-	-	-	4,0	-	-	-	38,0	-	-
20	20	30	42	32	8	22	22	8,0	4,5	4,8	9,4	M4	10	42,8	-	52,8
25	27	27	40	39	8	28	26	8,0	4,5	6,0	9,4	M4	10	45,0	60,0	45,5
32	32	36	48	45	10	36	32	9,4	5,5	5,7	9,4	M4	10	45,5	63,5	55,5
40	40	40	55	55	10	40	40	9,4	5,5	7,0	11,5	M5	10	47,0	65,0	57,0
50	50	50	65	65	13	50	50	11,5	6,5	7,0	11,5	M6	12	53,0	71,0	65,0
63	62	62	80	80	13	62	62	14,5	9,0	8,0	14,5	M6	12	57,0	77,0	69,0

* A and ZJ1 = Double acting cylinders and single acting cylinders up to stroke length 30 mm

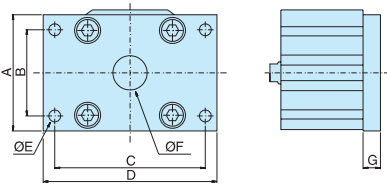
** AA and ZJ2 = Single acting cylinders, stroke length 31 to 50 mm

Length tolerances ±1 mm

Stroke length tolerances +1.5/0 mm

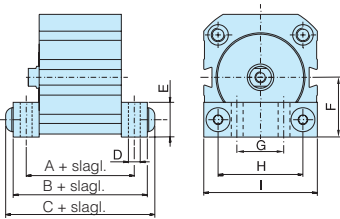
Dimensions (mm),

Flange, MF1



Cyl. Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm
12	25,4	18	38	46,0	3,6	10	4,8
20	38,0	24	50	58,0	3,6	15	6,0
25	40,0	28	54	63,5	4,6	15	6,0
32	48,0	36	66	76,0	4,6	15	6,0
40	63,5	42	78	92,0	6,6	20	9,5
50	70,0	50	90	102,0	6,6	25	9,5
63	85,0	63	110	127,0	8,6	25	12,7

Foot bracket

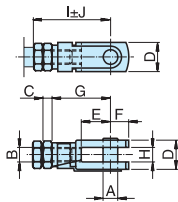


Cyl. Ø mm	A1* mm	A2** mm	B1* mm	B2** mm	C1* mm	C2** mm	D mm	E mm	F mm	G mm	H mm	I mm
12	42,0	-	50,0	-	54,4	-	3,5	12,7	17,0	25	13	33
20	44,5	-	51,0	-	57,5	-	3,5	12,7	22,0	35	20	43
25	48,5	63,5	58,0	73,0	64,5	79,5	4,5	16,0	23,0	41	27	51
32	49,3	67,3	58,7	76,7	65,3	83,3	4,5	16,0	27,0	19	32	46
40	53,7	71,7	66,5	84,5	75,2	93,2	6,5	19,0	31,5	21	40	56
50	58,7	76,7	71,5	89,5	80,3	98,3	6,5	19,0	37,0	27	50	66
63	69,0	89,0	88,0	108,0	99,0	119,0	8,5	25,4	43,0	34	62	83

* Double acting cylinders and single acting cylinders up to stroke length 30 mm

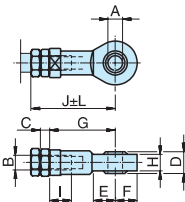
** Single acting cylinders, stroke length 31 to 50 mm

Clevis



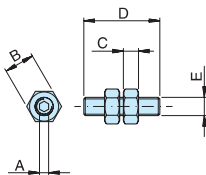
Cyl. Ø mm	A mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm
20	5	M5	2,5	10	10	6	20	5	25	2,0
25	5	M5	2,5	10	10	6	20	5	25	2,0
32	6	M6	3,0	12	12	7	24	6	30	3,0
40	6	M6	3,0	12	12	7	24	6	30	3,0
50	8	M8	5,0	16	16	10	32	8	42	3,5
63	8	M8	5,0	16	16	10	32	8	42	3,5

Swivel rod eye



Cyl. Ø mm	A mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	L mm
12	3	M3	1,6	6	10	7	21	4,5	4,5	24,2	1,0
20	5	M5	2,5	8	10	9	27	6,0	7,5	34,5	1,0
25	5	M5	2,5	8	10	9	27	6,0	7,5	34,5	1,0
32	6	M6	3,0	9	10	10	30	6,8	9,0	38,5	1,5
40	6	M6	3,0	9	10	10	30	6,8	9,0	38,5	1,5
50	8	M8	5,0	12	12	12	36	9,0	12,0	49,0	2,0
63	8	M8	5,0	12	12	12	36	9,0	12,0	49,0	2,0

Pin bolt



Cyl. Ø mm	A mm	B mm	C mm	D mm	E
12	1,5	5,5	1,6	10	M3
20	2,5	8,0	2,5	20	M5
25	2,5	8,0	2,5	20	M5
32	3,0	10,0	3,0	25	M6
40	3,0	10,0	3,0	25	M6
50	4,0	13,0	5,0	25	M8
63	4,0	13,0	5,0	25	M8

The versatile range of Short Build Cylinders, with unique porting options, integral sensor grooves and one of the shortest overall lengths on the market is suitable for a wide range of applications.



- 4 ported design - optional port configuration
- VDMA mounting centres 32mm to 100mm bore size
- Corrosion resistant design and low weight construction
- Magnetic piston as standard
- End of stroke buffers for long service life
- Lubricated with food grade grease

Operating information

Working pressure: Max 10 bar
Permissible fluid: Air, with or without lubrication
Standard working temperature: -20°C to +80°C
High temperature: -10°C to +150°C

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

For technical information see CD

Double acting - female threaded piston rod

Ø20mm - (M5)

Stroke mm	Order code
5	P1M020VDMA7G005
10	P1M020VDMA7G010
25	P1M020VDMA7G025
40	P1M020VDMA7G040
50	P1M020VDMA7G050
80	P1M020VDMA7G080
100	P1M020VDMA7G100
125	P1M020VDMA7G125
160	P1M020VDMA7G160
200	P1M020VDMA7G200

Ø25mm - (M5)

Stroke mm	Order code
5	P1M025VDMA7G005
10	P1M025VDMA7G010
25	P1M025VDMA7G025
40	P1M025VDMA7G040
50	P1M025VDMA7G050
80	P1M025VDMA7G080
100	P1M025VDMA7G100
125	P1M025VDMA7G125
160	P1M025VDMA7G160
200	P1M025VDMA7G200

Ø32mm - (G1/8)

Stroke mm	Order code
5	P1M032VDMA7G005
10	P1M032VDMA7G010
25	P1M032VDMA7G025
40	P1M032VDMA7G040
50	P1M032VDMA7G050
80	P1M032VDMA7G080
100	P1M032VDMA7G100
125	P1M032VDMA7G125
160	P1M032VDMA7G160
200	P1M032VDMA7G200
250	P1M032VDMA7G250
320	P1M032VDMA7G320

Ø40mm - (G1/8)

Stroke mm	Order code
5	P1M040VDMA7G005
10	P1M040VDMA7G010
25	P1M040VDMA7G025
40	P1M040VDMA7G040
50	P1M040VDMA7G050
80	P1M040VDMA7G080
100	P1M040VDMA7G100
125	P1M040VDMA7G125
160	P1M040VDMA7G160
200	P1M040VDMA7G200
250	P1M040VDMA7G250
320	P1M040VDMA7G320

Ø50mm - (G1/8)

Stroke mm	Order code
5	P1M050VDMA7G005
10	P1M050VDMA7G010
25	P1M050VDMA7G025
40	P1M050VDMA7G040
50	P1M050VDMA7G050
80	P1M050VDMA7G080
100	P1M050VDMA7G100
125	P1M050VDMA7G125
160	P1M050VDMA7G160
200	P1M050VDMA7G200
250	P1M050VDMA7G250
320	P1M050VDMA7G320

Ø63mm - (G1/8)

Stroke mm	Order code
5	P1M063VDMA7G005
10	P1M063VDMA7G010
25	P1M063VDMA7G025
40	P1M063VDMA7G040
50	P1M063VDMA7G050
80	P1M063VDMA7G080
100	P1M063VDMA7G100
125	P1M063VDMA7G125
160	P1M063VDMA7G160
200	P1M063VDMA7G200
250	P1M063VDMA7G250
320	P1M063VDMA7G320
400	P1M063VDMA7G400
500	P1M063VDMA7G500

Ø80mm - (G1/4)

Stroke mm	Order code
5	P1M080VDMA7G005
10	P1M080VDMA7G010
25	P1M080VDMA7G025
40	P1M080VDMA7G040
50	P1M080VDMA7G050
80	P1M080VDMA7G080
100	P1M080VDMA7G100
125	P1M080VDMA7G125
160	P1M080VDMA7G160
200	P1M080VDMA7G200
250	P1M080VDMA7G250
320	P1M080VDMA7G320
400	P1M080VDMA7G400
500	P1M080VDMA7G500

Ø100mm - (G1/4)

Stroke mm	Order code
5	P1M100VDMA7G005
10	P1M100VDMA7G010
25	P1M100VDMA7G025
40	P1M100VDMA7G040
50	P1M100VDMA7G050
80	P1M100VDMA7G080
100	P1M100VDMA7G100
125	P1M100VDMA7G125
160	P1M100VDMA7G160
200	P1M100VDMA7G200
250	P1M100VDMA7G250
320	P1M100VDMA7G320
400	P1M100VDMA7G400
500	P1M100VDMA7G500

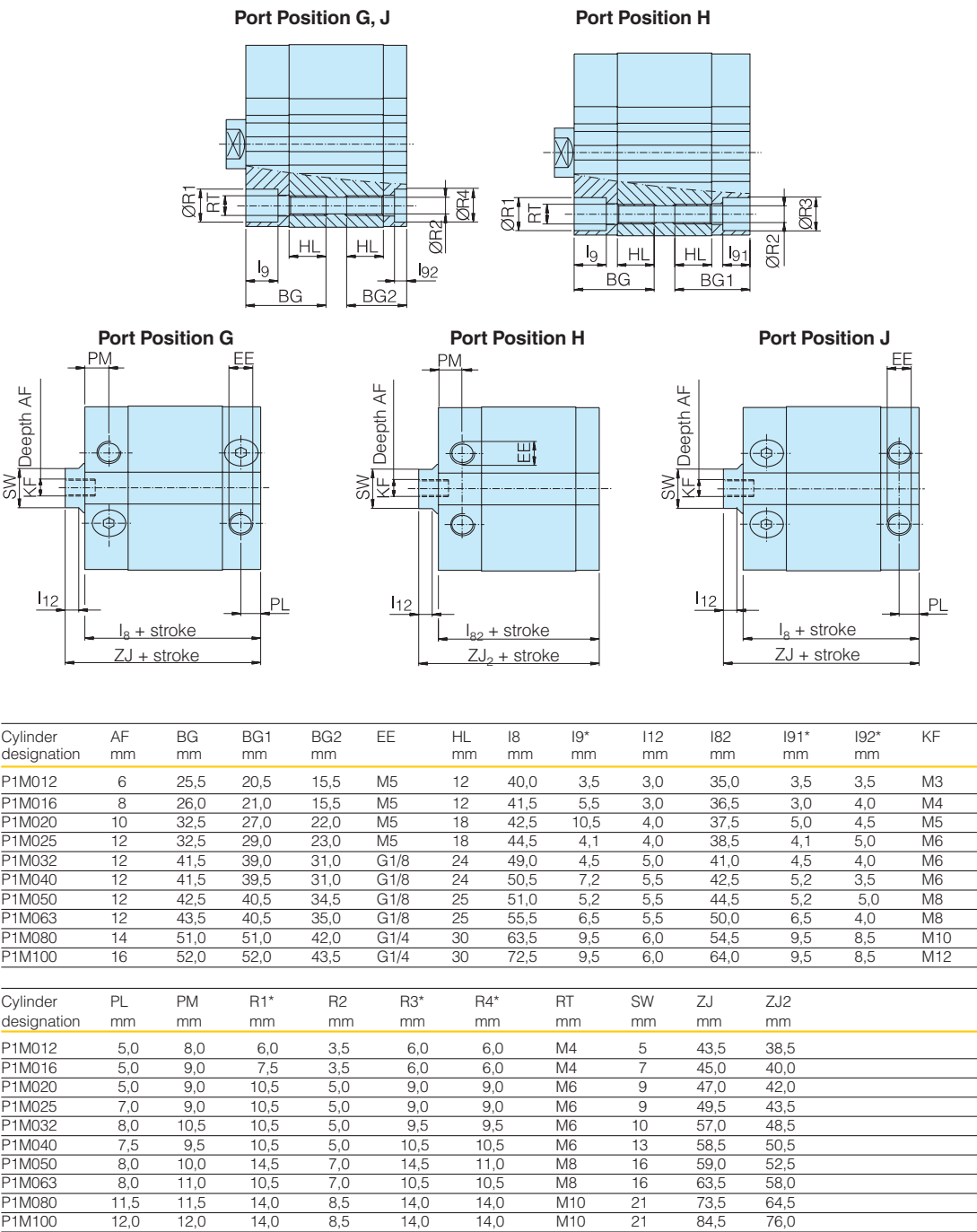
Indicates stocked product.

Sensors



For sensors see page 96.

Dimensions (mm),
Double acting
standard cylinders

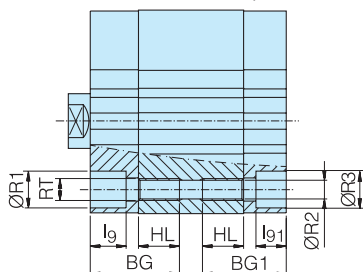


Length tolerances ± 1 mm Stroke length tolerances +1,5/0 mm

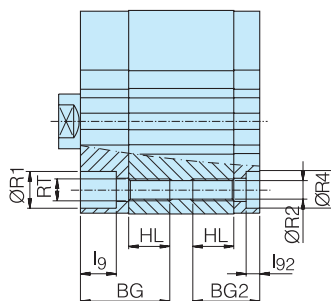
Dimensions (mm),

Single acting and High temperature variants

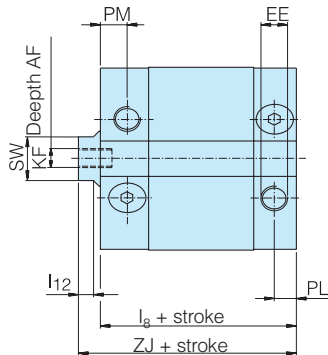
Port Position G, J



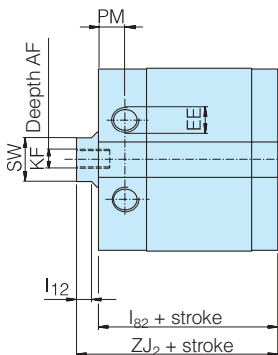
Port Position H



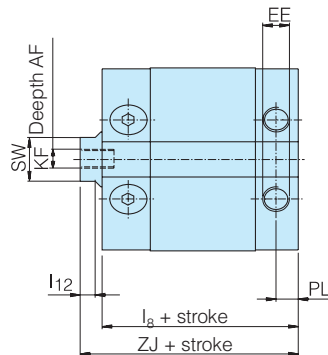
Port Position G



Port Position H



Port Position J



Cylinder designation	AF mm	BG mm	BG1 mm	BG2 mm	EE	HL mm	I8 mm	I9* mm	I12 mm	I82 mm	I91* mm	I92* mm	KF
P1M012	6	25,5	20,5	15,5	M5	12	40,0	3,5	3,0	35,0	3,5	3,5	M3
P1M016	8	26,0	21,0	15,5	M5	12	41,5	5,5	3,0	36,5	3,0	4,0	M4
P1M020	10	32,5	27,0	22,0	M5	18	42,5	10,5	4,0	37,5	5,0	4,5	M5
P1M025	12	32,5	29,0	23,0	M5	18	44,5	10,5	4,0	38,5	7,0	5,0	M6
P1M032	12	41,5	39,0	31,0	G1/8	24	49,0	14,5	5,0	41,0	12,5	4,0	M6
P1M040	12	41,5	39,5	31,0	G1/8	24	50,5	14,0	5,5	42,5	12,0	4,0	M6
P1M050	12	42,5	40,5	34,5	G1/8	25	51,0	13,0	5,5	44,5	11,0	5,0	M8
P1M063	12	43,5	40,5	35,0	G1/8	25	55,5	6,5	5,5	50,0	6,5	6,5	M8
P1M080	14	51,0	51,0	42,0	G1/4	30	63,5	9,5	6,0	54,5	9,5	8,5	M10
P1M100	16	52,0	52,0	43,5	G1/4	30	72,5	9,5	6,0	64,0	9,5	8,5	M12

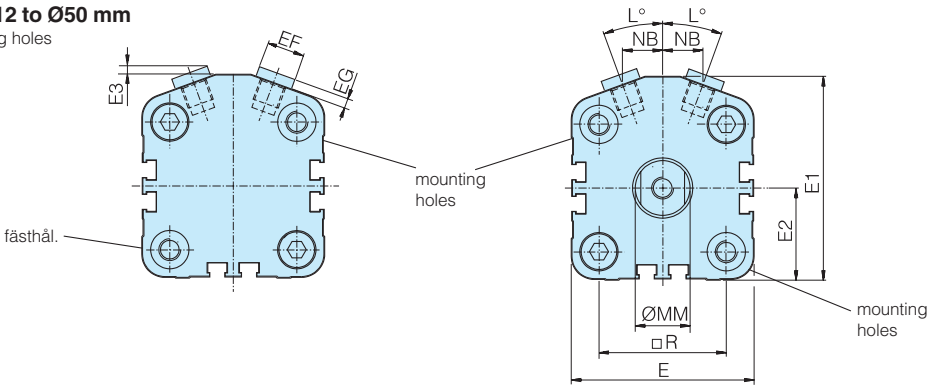
Cylinder designation	PL mm	PM mm	R1* mm	R2 mm	R3* mm	R4* mm	RT mm	SW	ZJ mm	ZJ2 mm
P1M012	5,0	8,0	6,0	3,5	6,0	6,0	M4	5	43,5	38,5
P1M016	5,0	9,0	7,5	3,5	6,0	6,0	M4	7	45,0	40,0
P1M020	5,0	9,0	10,5	5,0	9,0	9,0	M6	9	47,0	42,0
P1M025	7,0	9,0	10,5	5,0	9,0	9,0	M6	9	49,5	43,5
P1M032	8,0	10,5	10,5	5,0	10,5	10,5	M6	10	57,0	48,5
P1M040	7,5	9,5	10,5	5,0	10,5	10,5	M6	13	58,5	50,5
P1M050	8,0	10,0	13,5	7,0	13,5	13,5	M8	16	59,0	52,5
P1M063	8,0	11,0	10,5	7,0	10,5	10,5	M8	16	63,5	58,0
P1M080	11,5	11,5	14,0	8,5	14,0	14,0	M10	21	73,5	64,5
P1M100	12,0	12,0	14,0	8,5	14,0	14,0	M10	21	84,5	76,0

Length tolerances ± 1 mm Stroke length tolerances $+1,5/0$ mm

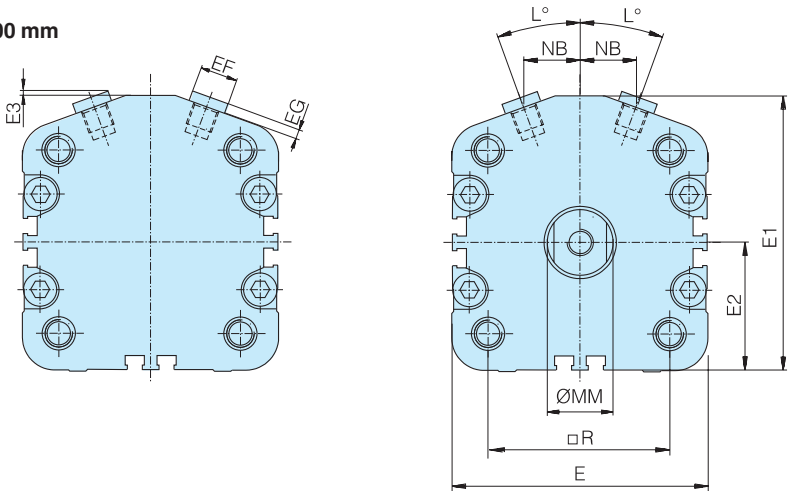
Dimensions (mm),

Port Position G, H, J

Bore Ø12 to Ø50 mm
2 mounting holes



Bore Ø63 to Ø100 mm
4 mounting holes

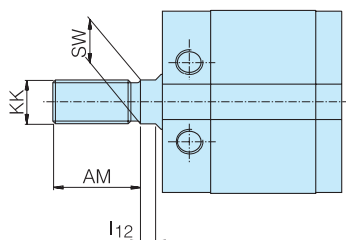


Cylinder designation	E mm	E1 mm	E2 mm	E3 mm	EE mm	EF mm	EG mm	L mm	MM mm	NB mm	R mm
P1M 012	27,0	31,0	14,0	-	M5	-	-	26°	6	5,5	15,5
P1M 016	31,5	35,0	16,0	-	M5	-	-	20°	8	6,5	20,0
P1M 020	38,5	42,5	19,5	3,5	M5	7*	4,5	20°	10	7,5	25,5
P1M 025	41,5	45,5	21,0	3,5	M5	7*	4,5	20°	10	8,5	28,0
P1M 032	48,0	56,0	24,0	3,0	G1/8	14	2,5	20°	12	9,5	32,5
P1M 040	56,0	62,5	28,0	3,0	G1/8	14	2,5	20°	16	11,5	38,0
P1M 050	67,0	74,5	33,5	3,0	G1/8	14	2,5	20°	20	14,5	46,5
P1M 063	82,0	86,0	40,5	2,5	G1/8	14	2,5	20°	20	17,5	56,5
P1M 080	98,0	106,5	48,5	2,5	G1/4	17	3,0	20°	25	25,5	72,0
P1M 100	119,0	126,5	59,5	2,5	G1/4	17	3,0	20°	25	31,5	89,0

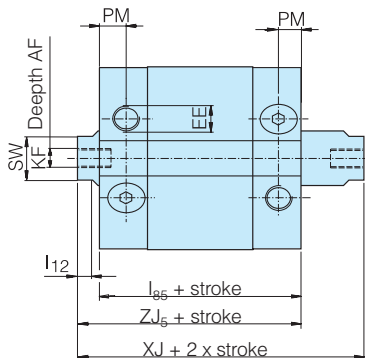
** Hexagon head screw

Dimensions (mm),

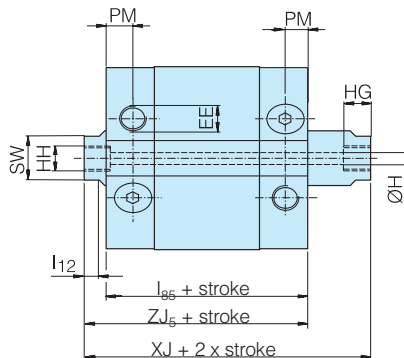
**Piston rod thread 8
(external)**



**Cylinder type K
(through piston rod)**



**Cylinder type H
(hollow, through piston rod)**



Cylinder designation	AF mm	AM mm	H* mm	HG mm	HH mm	l12 mm	l85 mm	KF	KK	PM mm	SW mm	XJ mm	ZJ5 mm
P1M 012	6	16	-	-	-	3,0	46,0	M3	M6	8,0	5	54,0	50,0
P1M 016	8	20	-	-	-	3,0	47,5	M4	M6	9,0	7	54,5	51,5
P1M 020	10	22	3	7	M5	4,0	49,5	M5	M8	9,0	9	58,5	54,0
P1M 025	12	22	3	7	M5	4,0	49,5	M6	M10X1,25	9,0	9	60,0	55,0
P1M 032	12	22	3	7	G1/8	5,0	51,5	M6	M10X1,25	10,5	10	67,5	59,5
P1M 040	12	24	4	8	G1/8	5,5	52,5	M6	M12X1,25	9,5	13	69,0	60,5
P1M 050	12	32	5	8	G1/8	5,5	53,0	M8	M16X1,5	10,0	16	69,0	61,0
P1M 063	12	32	5	8	G1/8	5,5	58,5	M8	M16X1,5	11,0	16	75,0	66,5
P1M 080	14	40	6	11	G1/4	6,0	63,5	M10	M20X1,5	11,5	21	84,0	73,5
P1M 100	16	40	6	11	G1/4	6,0	72,5	M12	M20X1,5	12,0	21	97,0	84,5

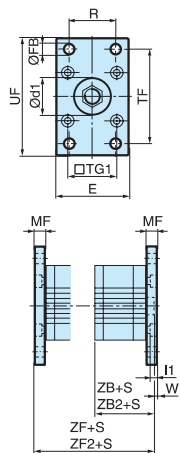
* Dimension H only for cylinder H

Length tolerances ± 1 mm

Stroke length tolerances $\pm 1,5/0$ mm

Dimensions (mm),

Flange MF1/MF2

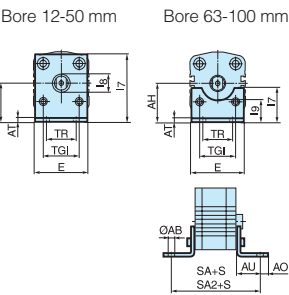


Cyl. bore	d1	FB	TG1	E	R	MF	TF	UF	I1	W	ZF*	ZB*	ZF2*	ZB2*	Order code
mm	H11	H13	mm	mm	JS14	JS14	-0,5	mm	mm	mm	mm	mm	mm	mm	
12	9,0	4,5	15,5	25	-	5,5	45,0	55	3,0	2,0	44,0	38,5	49,0	43,5	P1M-4DMB
16	11,5	4,5	20,0	30	-	5,5	45,0	55	3,0	2,0	45,5	40,0	50,5	45,0	P1M-4FMB
20	14,0	6,6	25,5	39	-	8,0	50,5	62	4,2	4,5	49,0	41,0	54,0	46,0	P1M-4HMB
25	14,0	6,6	28,0	42	-	8,0	53,0	65	4,2	3,0	51,5	43,5	56,5	49,5	P1M-4JMB
32	30,0	7,0	32,5	45	32	10,0	64,0	80	5,0	2,0	58,5	48,5	67,0	57,0	P1C-4KMB
40	35,0	9,0	38,0	52	36	10,0	72,0	90	5,0	2,0	60,5	50,5	68,5	58,5	P1C-4LMB
50	40,0	9,0	46,5	65	45	12,0	90,0	110	6,5	4,0	64,5	52,5	71,0	59,0	P1C-4MMB
63	45,0	9,0	56,5	75	50	12,0	100,0	120	6,5	4,0	70,0	58,0	75,5	63,5	P1C-4NMB
80	45,0	12,0	72,0	95	63	16,0	126,0	150	8,0	6,0	80,5	64,5	89,5	73,5	P1C-4PMB
100	55,0	14,0	89,0	115	75	16,0	150,0	170	8,0	4,0	92,0	76,0	100,5	84,5	P1C-4QMB

S = Stroke length

* ZF, ZB for cylinders with both ports in front end (type H)
ZF2, ZB2 for all other cylinders (type G, J, K)

Angle bracket MS1

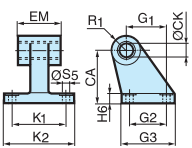


Cyl. bore	AB	TG1	E	TR	AO	AU	AH	I7	AT	I9	I8	SA*	SA2*	Order code
mm	H14	mm	mm	JS14	mm	JS15	mm	mm	JS14	mm	mm	mm	mm	
12	4,5	15,5	44	35	5,5	8,0	17	29,5	2	-	8	51,0	56,0	P1M-4DMF
16	4,5	20,0	48	39	6,0	8,0	19	33,5	2	-	10	52,5	57,5	P1M-4FMF
20	6,6	25,5	62	50	7,5	9,0	24	42,0	3,2	-	12	59,5	64,5	P1M-4HMF
25	6,6	28,0	66	52	7,5	10,5	26	46,0	3,2	-	12	59,5	65,5	P1M-4JMF
32	7,0	32,5	45	32	11,0	24,0	32	54,5	8,0	-	30	88,5	97,0	P1C-4KMZ
40	9,0	38,0	52	36	7,0	28,0	36	62,0	8,0	-	35	98,5	106,5	P1C-4LMZ
50	9,0	46,5	65	45	13,0	32,0	45	77,5	10,0	-	40	108,5	115,0	P1C-4MMZ
63	9,0	56,5	75	50	13,0	32,0	50	35,0	5,5	27,5	-	114,0	119,5	P1C-4NMF
80	12,0	72,0	95	63	14,0	41,0	63	49,0	6,5	40,5	-	136,5	145,5	P1C-4PMF
100	14,0	89,0	115	75	15,0	41,0	71	54,0	6,5	43,5	-	146,0	154,5	P1C-4QMF

S = Stroke length

* SA for cylinders with both ports in front end (type H)
* SA2 for all other cylinders (type G, J, K)

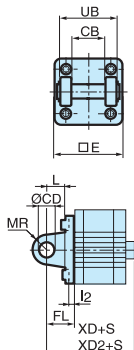
Pivot bracket with rigid bearing



Cyl. bore	CK	S5	K1	K2	G1	G2	EM	G3	CA	H6	R1	Order code
mm	H9	H13	JS14	mm	JS14	JS14	mm	mm	JS15	mm	mm	
32	10	6,6	38	51	21	18	25,5	31	32	8	10	P1C-4KMD
40	12	6,6	41	54	24	22	27,0	35	36	10	11	P1C-4LMD
50	12	9,0	50	65	33	30	31,0	45	45	12	13	P1C-4MMD
63	16	9,0	52	67	37	35	39,0	50	50	12	15	P1C-4NMD
80	16	11,0	66	86	47	40	49,0	60	63	14	15	P1C-4PMD
100	20	11,0	76	96	55	50	59,0	70	71	15	19	P1C-4QMD

Dimensions (mm),

Clevis bracket MP2

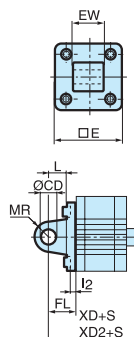


Cyl. bore mm	E h14 mm	UB H14 mm	CB ±0,2 mm	FL mm	L mm	I2 H9 mm	CD mm	MR mm	XD* mm	XD2* mm	Order code
12	27,0	10	5,2	14	7	-	5	6	52,5	57,5	P1M-4DMT
16	31,5	12	6,7	15	10	-	5	6	55,0	60,0	P1M-4FMT
20	38,5	16	8,2	18	12	-	8	9	59,0	65,0	P1M-4HMT
25	41,0	20	10,2	20	14	-	10	10	63,5	69,5	P1M-4JMT
32	45,0	45	26,0	22	13	5,5	10	10	70,5	79,0	P1C-4KMT
40	52,0	52	28,0	25	16	5,5	12	12	75,5	83,5	P1C-4LMT
50	65,0	60	32,0	27	16	6,5	12	12	79,5	86,0	P1C-4MMT
63	75,0	70	40,0	32	21	6,5	16	16	90,0	95,5	P1C-4NMT
80	95,0	90	50,0	36	22	10,0	16	16	100,5	109,5	P1C-4PMT
100	115,0	110	60,0	41	27	10,0	20	20	117,0	125,5	P1C-4QMT

S = Stroke length

* XD for cylinders with both ports in front end (type H)
XD2 for all other cylinders (type G, J, K)

Clevis bracket MP4

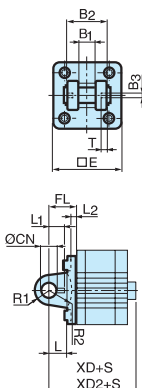


Cyl. bore mm	E mm	EW mm	FL ±0,2 mm	L mm	I2 mm	CD H9 mm	MR mm	XD* mm	XD2* mm	Order code
12	27,0	4,7	14	7	-	5	6	52,5	57,5	P1M-4DME
16	31,5	6,2	15	10	-	5	6	55,0	60,0	P1M-4FME
20	38,5	7,7	18	12	-	8	9	59,0	65,0	P1M-4HME
25	41,0	9,7	20	14	-	10	10	63,5	69,5	P1M-4JME
32	45,0	26,0	22	13	5,5	10	10	70,5	79,0	P1C-4KME
40	52,0	28,0	25	16	5,5	12	12	75,5	83,5	P1C-4LME
50	65,0	32,0	27	16	6,5	12	12	79,5	86,0	P1C-4MME
63	75,0	40,0	32	21	6,5	16	16	90,0	95,5	P1C-4NME
80	95,0	50,0	36	22	10,0	16	16	100,5	109,5	P1C-4PME
100	115,0	60,0	41	27	10,0	20	20	117,0	125,5	P1C-4QME

S = Stroke length

* XD for cylinders with both ports in front end (type H)
XD2 for all other cylinders (type G, J, K)

Clevis bracket GA



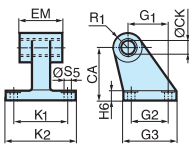
Cyl. bore mm	E mm	B2 d12 mm	B1 H14 mm	T mm	B3 mm	R2 mm	L1 mm	FL ±0,2 mm	I2 mm	L mm	CN F7 mm	R1 mm	XD* mm	XD2* mm	Order code
32	45	34	14	3	3,3	17	11,5	22	5,5	12	10	11	70,5	79,0	P1C-4KMCA
40	52	40	16	4	4,3	20	12,0	25	5,5	15	12	13	75,5	83,5	P1C-4LMCA
50	65	45	21	4	4,3	22	14,0	27	6,5	17	16	18	79,5	86,0	P1C-4MMCA
63	75	51	21	4	4,3	25	14,0	32	6,5	20	16	18	90,0	95,5	P1C-4NMCA
80	95	65	25	4	4,3	30	16,0	36	10,0	20	20	22	100,5	109,5	P1C-4PMCA
100	115	75	25	4	4,3	32	16,0	41	10,0	25	20	22	117,0	125,5	P1C-4QMCA

S = Stroke length

* XD for cylinders with both ports in front end (type H)
XD2 for all other cylinders (type G, J, K)

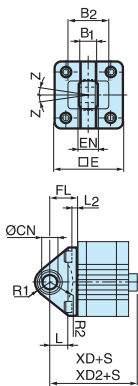
Dimensions (mm),

Pivot bracket with swivel bearing



Cyl. bore	CN	S5	K1	K2	EU	G1	G2	EN	G3	CH	H6	ER	Z	Order code
mm	H7	H13	JS14	mm	mm	JS14	JS14	mm	mm	JS15	mm	mm	mm	
32	10	6,6	38	51	10,5	21	18	14	31	32	10	16	4°	P1C-4KMA
40	12	6,6	41	54	12,0	24	22	16	35	36	10	18	4°	P1C-4LMA
50	16	9,0	50	65	15,0	33	30	21	45	45	12	21	4°	P1C-4MMA
63	16	9,0	52	67	15,0	37	35	21	50	50	12	23	4°	P1C-4NMA
80	20	11,0	66	86	18,0	47	40	25	60	63	14	28	4°	P1C-4PMA
100	20	11,0	76	96	18,0	55	50	25	70	71	15	30	4°	P1C-4QMA

Swivel eye bracket

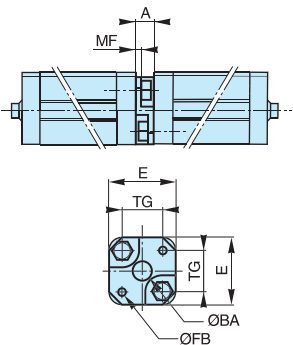


Cyl. bore	E	B1	B2	EN	R1	R2	FL	I2	L	CN	XD*	XD2*	Z	Order code
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	H7	mm	mm	mm	
32	45	10,5	38	14	16	14	22	5,5	12	10	70,5	79,0	4°	P1C-4KMSA
40	52	12,0	44	16	18	16	25	5,5	15	12	75,5	83,5	4°	P1C-4LMSA
50	65	15,0	51	21	21	19	27	6,5	15	16	79,5	86,0	4°	P1C-4MMSA
63	75	15,0	56	21	23	22	32	6,5	20	16	90,0	95,5	4°	P1C-4NMSA
80	95	18,0	72	25	29	25	36	10,0	20	20	100,5	109,5	4°	P1C-4PMSA
100	115	18,0	82	25	31	27	41	10,0	25	20	117,0	125,5	4°	P1C-4QMSA

S=Stroke length

* XD for cylinders with both ports in front end (type H)
XD2 for all other cylinders (type G, J, K)

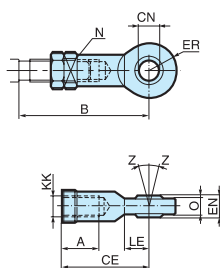
Mounting kit



Cyl. bore	E	TG	ØFB	MF	A	ØBA	Order code
mm	mm	mm	mm	mm	mm	mm	
32	50	32,5	6,5	5	16	30	P1E-6KB0
40	60	38,0	6,5	5	16	35	P1E-6LB0
50	66	46,5	8,5	6	20	40	P1E-6MB0
63	80	56,5	8,5	6	20	45	P1E-6NB0
80	100	72,0	10,5	8	25	45	P1E-6PB0
100	118	89,0	10,5	8	25	55	P1E-6QB0

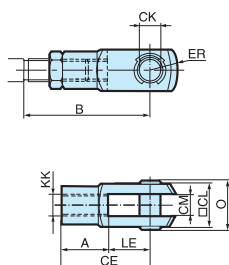
Dimensions (mm),

Swivel rod eye



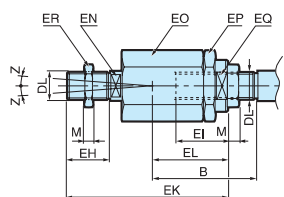
Cyl. bore mm	A mm	B min mm	B max mm	CE mm	CN H9 mm	EN h12 mm	ER mm	KK mm	LE min mm	M mm	N mm	O mm	Z	Order code
12	9	37	40	30	6	9	10	M6	10	3,2	10	6,8	10°	P1A-4DRS
16	9	37	40	30	6	9	10	M6	10	3,2	10	6,8	10°	P1A-4DRS
20	12	44	48	36	8	12	12	M8	12	4,0	13	9,0	12°	P1A-4HRS
25	15	48	55	43	10	14	14	M10X1,25	14	5,0	17	10,5	12°	P1A-4JRS
32	20	48	55	43	10	14	14	M10x1,25	15	5,0	17	10,5	12°	P1C-4KRS
40	22	56	62	50	12	16	16	M12x1,25	17	6,0	19	12,0	12°	P1C-4LRS
50	28	72	80	64	16	21	21	M16x1,5	22	8,0	22	15,0	15°	P1C-4MRS
63	28	72	80	64	16	21	21	M16x1,5	22	8,0	22	15,0	15°	P1C-4MRS
80	33	87	97	77	20	25	25	M20x1,5	26	10,0	32	18,0	15°	P1C-4PRS
100	33	87	97	77	20	25	25	M20x1,5	26	10,0	32	18,0	15°	P1C-4PRS

Clevis



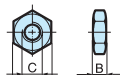
Cyl. bore mm	A mm	B min mm	B max mm	CE mm	CK h11/E9 mm	CL mm	CM mm	ER mm	KK mm	LE mm	M mm	O mm	Order code
12	12	28	34	24	6	12	6	7	M6	12	3,2	17,0	P1A-4DRC
16	12	28	34	24	6	12	6	7	M6	12	3,2	17,0	P1A-4DRC
20	16	37	44	32	8	16	8	10	M8	16	4,0	22,0	P1A-4HRC
25	20	45	52	40	10	20	10	12	M10X1,25	20	5,0	28,0	P1A-4JRC
32	20	45	52	40	10	20	10	16	M10x1,25	20	5,0	28,0	P1C-4KRC
40	24	54	60	48	12	24	12	19	M12x1,25	24	6,0	32,0	P1C-4LRC
50	32	72	80	64	16	32	16	25	M16x1,5	32	8,0	41,5	P1C-4MRC
63	32	72	80	64	16	32	16	25	M16x1,5	32	8,0	41,5	P1C-4MRC
80	40	90	100	80	20	40	20	32	M20x1,5	40	10,0	50,0	P1C-4PRC
100	40	90	100	80	20	40	20	32	M20x1,5	40	10,0	50,0	P1C-4PRC

Flexocoupling



Cyl. bore mm	B min mm	B max mm	DL mm	EH mm	EI mm	EK mm	EL mm	EN mm	EO mm	EP mm	EQ mm	M mm	Z	Order code
32	36	43	M10x1,25	20	23	70	31	12	30	30	19	5	4°	
40	37	43	M12x1,25	23	23	67	31	12	30	30	19	6	4°	
50	53	61	M16x1,5	40	32	112	45	19	41	41	30	8	4°	
63	53	61	M16x1,5	40	32	112	45	19	41	41	30	8	4°	
80	57	67	M20x1,5	39	42	122	56	19	41	41	30	10	4°	
100	57	67	M20x1,5	39	42	122	56	19	41	41	30	10	4°	

Nut



Cyl. bore mm	d mm	M mm	S mm	Order code
12	M6	3,2	10	0261210800
16	M6	3,2	10	0261210800
20	M8	4,0	13	0261211000
25	M10x1,25	5,0	17	9128985601
32	M10x1,25	5,0	17	9128985601
40	M12x1,25	6,0	19	0261109910
50	M16x1,5	8,0	24	9128985603
63	M16x1,5	8,0	24	9128985603
80	M20x1,5	10,0	30	0261109911
100	M20x1,5	10,0	30	0261109911

The P1K series cylinders are double acting with fixed end cushioning for light duty applications. The range is based upon the International ISO 6431 standard, but with considerably shorter overall length. They are available in bore sizes 32-125 mm with standard stroke lengths, 25-320 mm. The clean design with end plates that precisely line up with the unique housing tube profile means that a lot of P1K cylinders are used in the foodstuffs industry. With a few adaptations, such as fully anodised end plate screws, the P1K is the perfect cylinder for cheesemaking equipment.



- Ø32 - 125mm Bore sizes
- Single and double acting
- Clean line profile design
- Designed for dry piston rod operation
- End stroke buffers for long service life
- Position sensing versions.

Operating information

Working pressure: Max 10 bar
Temperature range: -20°C to +70°C

For technical information see CD

Double acting

Ø32mm

Stroke mm	Order code
25	P1K-S032DT-0025
50	P1K-S032DT-0050
80	P1K-S032DT-0080
100	P1K-S032DT-0100
125	P1K-S032DT-0125
160	P1K-S032DT-0160
200	P1K-S032DT-0200
250	P1K-S032DT-0250

Ø40mm

Stroke mm	Order code
25	P1K-S040DT-0025
50	P1K-S040DT-0050
80	P1K-S040DT-0080
100	P1K-S040DT-0100
125	P1K-S040DT-0125
160	P1K-S040DT-0160
200	P1K-S040DT-0200
250	P1K-S040DT-0250

Ø50mm

Stroke mm	Order code
25	P1K-S050DT-0025
50	P1K-S050DT-0050
80	P1K-S050DT-0080
100	P1K-S050DT-0100
125	P1K-S050DT-0125
160	P1K-S050DT-0160
200	P1K-S050DT-0200
250	P1K-S050DT-0250

Ø63mm

Stroke mm	Order code
25	P1K-S063DT-0025
50	P1K-S063DT-0050
80	P1K-S063DT-0080
100	P1K-S063DT-0100
125	P1K-S063DT-0125
160	P1K-S063DT-0160
200	P1K-S063DT-0200
250	P1K-S063DT-0250

Ø80mm

Stroke mm	Order code
25	P1K-S080DT-0025
50	P1K-S080DT-0050
80	P1K-S080DT-0080
100	P1K-S080DT-0100
125	P1K-S080DT-0125
160	P1K-S080DT-0160
200	P1K-S080DT-0200
250	P1K-S080DT-0250
320	P1K-S080DT-0250

Ø100mm

Stroke mm	Order code
25	P1K-S0100DT-0025
50	P1K-S0100DT-0050
80	P1K-S0100DT-0080
100	P1K-S0100DT-0100
125	P1K-S0100DT-0125
160	P1K-S0100DT-0160
200	P1K-S0100DT-0200
250	P1K-S0100DT-0250
320	P1K-S0100DT-0250

Ø125mm

Stroke mm	Order code
25	P1K-S0125DT-0025
50	P1K-S0125DT-0050
80	P1K-S0125DT-0080
100	P1K-S0125DT-0100
125	P1K-S0125DT-0125
160	P1K-S0125DT-0160
200	P1K-S0125DT-0200
250	P1K-S0125DT-0250
320	P1K-S0125DT-0250

Single acting - Push type

Ø32mm

Stroke mm	Order code
25	P1K-S032ST-0025
50	P1K-S032ST-0050

Ø40mm

Stroke mm	Order code
25	P1K-S040ST-0025
50	P1K-S040ST-0050

Ø50mm

Stroke mm	Order code
25	P1K-S050ST-0025
50	P1K-S050ST-0050

Ø63mm

Stroke mm	Order code
25	P1K-S063ST-0025
50	P1K-S063ST-0050

Ø80mm

Stroke mm	Order code
50	P1K-S080ST-0050

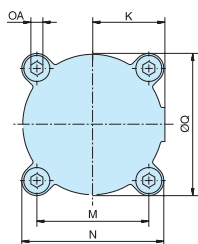
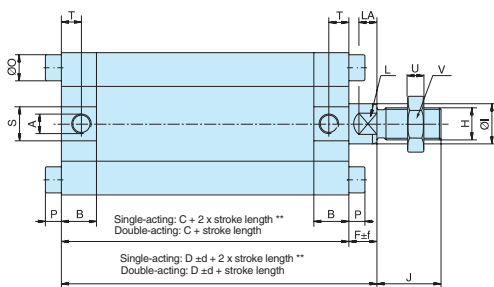
Ø100mm

Stroke mm	Order code
50	P1K-S0100ST-0050

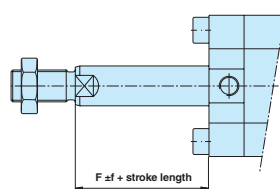
Ø125mm

Stroke mm	Order code
50	P1K-S0125ST-0050

Dimensions, basic cylinder



P1KU, through piston rod



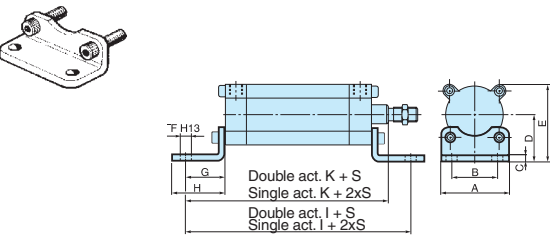
Cylinder bore	A	B	C	D	F	H	I	J	K	L	LA	M	N	O	OA
32	G1/8	17,0	65	75	10	M10x1,25	12	22	21,0	10	6	32,5	42,5	8,5	4
40	G1/8	17,0	65	78	13	M12x1,25	16	24	24,0	14	9	36,8	48,0	10,0	5
50	G1/8	17,5	71	85	14	M16x1,5	20	32	29,0	17	9	46,7	59,0	10,0	5
63	G1/8	17,5	72	86	14	M16x1,5	20	32	36,0	17	9	55,9	71,0	13,0	6
80	G1/4	21,5	85	101	16	M20x1,5	25	40	44,5	22	10	70,0	87,0	16,0	8
100	G1/4	21,5	87	108	21	M20x1,5	32	40	55,0	27	13	84,1	102,0	16,0	8
125	G3/8	25,5	94,5	115,5	21	M27x2	32	54	68,0	27	13	104,0	124,0	18,0	10

Cylinder bore	P	Q	S	T	U	V	Assembly tolerances d	f	Stroke length tolerances 0-320 (at 6 bar)
32	5	37	17	10	5	17	0,9	1,2	+2,0
40	6	45	17	10	6	19	0,9	1,2	+2,0
50	6	56	17	10	8	24	0,9	1,2	+2,0
63	8	70	17	10	8	24	1,2	1,6	+2,5
80	10	87	21	12	10	30	1,2	1,6	+2,5
100	10	108	21	12	10	30	1,2	1,6	+2,5
125	12	134	25	14	13,5	41	1,2	1,6	+2,5

* S = stroke length ** Stroke length for bore sizes 32-63 = 25 and 50 mm, for bore sizes 80-100 = 50 mm.

Cylinder mountings

Foot bracket MS1



Intended for fixed mounting of cylinder. This bracket can be fitted to front and rear end covers.

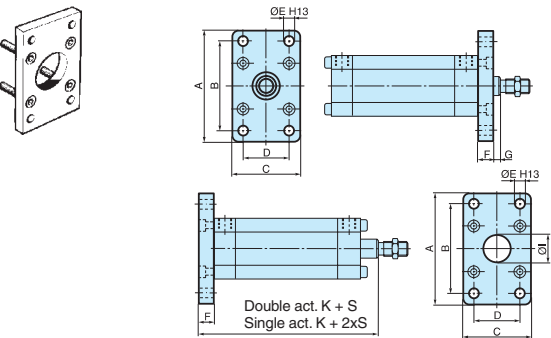
Material
Body galvanized steel. These brackets are supplied in pairs.

When fitting:
Remove the bolts from the cylinder end cover and fit the bracket, using the same bolts. The bolts supplied with the mount are intended for use with another range of cylinders and must not be used with the P1K range.

Cyl. Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	K mm	Weight kg	Order code
32	48	32	5,0	32	53	7	24	32	113,0	99,0	0,08	9121644801
40	54	36	5,0	36	60	9	31	42	127,0	109,0	0,11	9121644802
50	64	45	6,0	45	75	9	33	45	137,0	118,0	0,18	9121644803
63	76	50	6,0	50	86	9	36	48	144,0	122,0	0,26	9121644804
80	94	63	8,0	63	107	12	43	58	171,0	144,0	0,50	9121644805
100	110	75	10,5	71	122	14	43	60	173,0	151,0	0,80	9121644806
125	135	90	12,5	90	157	16	45	70	184,5	160,5	1,40	9121644807

S=stroke length

Flange MF1 and MF2



Intended for fixed mounting of cylinder. This bracket can be fitted to front and rear end covers.

Material
Diam. 32 - 63 mm: flange anodised aluminium
Diam. 80 - 125 mm: flange galvanized steel

The flange is supplied complete with screws for mounting on the cylinder.

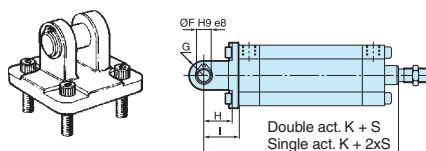
When fitting:
Remove the bolts from the cylinder end cover and fit the bracket, using the same bolts. The bolts supplied with the mount are intended for use with another range of cylinders and must not be used with the P1K range.

Cyl. Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	Weight kg	Order code
32	80	64	48	32	7	10	0	86,0	27	0,26	9121644901
40	90	72	54	36	9	13	0	91,0	32	0,37	9121644902
50	110	90	64	45	9	13	1	98,0	40	0,52	9121644903
63	120	100	76	50	9	16	-2	102,0	40	0,90	9121644904
80	155	126	94	63	12	18	-2	119,0	50	1,59	9121644905
100	180	150	110	75	14	18	3	126,0	60	2,19	9121644906
125	220	180	135	90	16	20	1	135,5	72	3,90	9121644907

S=stroke length

Cylinder mountings

Clevis bracket MP4



Intended for flexible mounting of cylinder. This bracket can be combined with clevis bracket MP2 and swivel rod bracket.

Materials:
Body anodised aluminium and shaft of hardened steel. The mount is supplied complete with shaft.

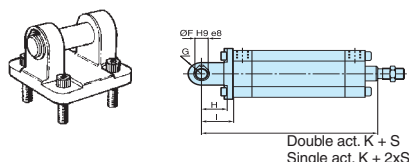
When fitting:

Remove the bolts from the cylinder end cover and fit the mount, using the same bolts. The bolts supplied with the mount are intended for use with another range of cylinders and must not be used with the P1K range.

Cyl. Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	K mm	Weight kg	Order code
32	48	22	33	26	10	10	11	15,0	22	97,0	0,05	9121644601
40	54	24	35	28	12	12	12	21,0	28	106,0	0,13	9121644602
50	64	32	39	32	12	12	13	19,5	28	113,0	0,18	9121644603
63	76	39	47	40	16	16	17	26,0	36	122,0	0,34	9121644604
80	94	48	57	50	16	16	17	26,0	38	139,0	0,57	9121644605
100	110	62	67	60	20	20	21	29,0	43	151,0	0,91	9121644606
125	135	70	77	70	25	25	26	35,0	50	165,5	2,90	9121644607

S=stroke length

Clevis bracket MP2



Intended for flexible mounting of cylinder. This bracket can be combined with clevis bracket MP4.

Materials:
Body anodised aluminium and shaft of hardened steel. The mount is supplied complete with shaft.

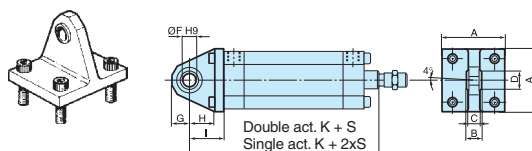
When fitting:

Remove the bolts from the cylinder end cover and fit the mount, using the same bolts. The bolts supplied with the mount are intended for use with another range of cylinders and must not be used with the P1K range.

Cyl. Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	K mm	Weight kg	Order code
32	48	22	52	45	26	10	11	15,0	22	97,0	0,13	9121644701
40	54	24	59	52	28	12	12	21,0	28	106,0	0,19	9121644702
50	64	32	67	60	32	12	13	19,5	28	113,0	0,22	9121644703
63	76	39	77	70	40	16	17	26,0	36	122,0	0,40	9121644704
80	94	48	97	90	50	16	17	26,0	38	139,0	0,65	9121644705
100	110	62	117	110	60	20	21	29,0	43	151,0	1,09	9121644706
125	135	70	137	130	70	25	26	35,0	50	165,5	3,60	9121644707

S=stroke length

Swivel rod bracket



Intended for flexible mounting of cylinder. The swivel rod permits lateral articulation. The bracket can be combined with clevis bracket MP4.

Materials:
Body anodised aluminium and swivel bearing of hardened steel.

When fitting:

Remove the bolts from the cylinder end cover and fit the mount, using the same bolts. The bolts supplied with the mount are intended for use with another range of cylinders and must not be used with the P1K range.

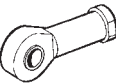
Cyl. Ø mm	A mm	B mm	C mm	D mm	F mm	G mm	H mm	I mm	K mm	Weight kg	Order code
32	48	9	7,5	13,0	10	12,5	15,0	22	97,0	0,08	9121568601
40	54	12	9,0	15,5	12	15,5	21,0	28	106,0	0,12	9121568602
50	64	12	9,0	15,5	12	16,5	19,5	28	113,0	0,17	9121568603
63	76	16	12,5	20,0	16	19,5	26,0	36	122,0	0,30	9121568604
80	94	16	12,5	20,0	16	21,5	26,0	38	139,0	0,49	9121568605
100	110	20	16,0	25,0	20	25,5	29,0	43	151,0	0,73	9121568606
125	135	25	20,5	30,5	25	30,0	35,0	50	165,5	2,40	9121568607

S=stroke length

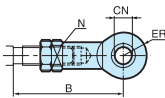
Cylinder mountings

Swivel rod eye

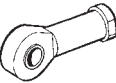
Intended for articulated mounting of the cylinder.
Maintenance-free PTFE.



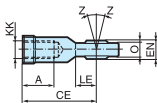
Material:
Swivel rod eye, nut: galvanized steel.
Swivel bearing according to DIN 648K: Hardened steel.



Stainless steel swivel rod eye Stainless-steel swivel rod eye for articulated mounting of cylinder.
Maintenance-free.



Materials
Swivel rod eye: Stainless steel
Swivel bearing according to DIN 648K: Stainless steel
Use stainless steel nut with stainless steel swivel rod eye.



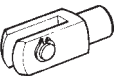
ISO 8139

Cyl.- dia. mm	A mm	B min mm	B max mm	CE mm	CN H9 mm	EN h12 mm	ER mm	KK	LE	N* min mm	O mm	Z	Weight kg	Order code Galvanised Steel	Order code Stainless Steel
32	20	48,0	55	43	10	14	14	M10x1,25	15	17	10,5	12°	0,08	P1C-4KRS	P1S-4JRT
40	22	56,0	62	50	12	16	16	M12x1,25	17	19	12,0	12°	0,12	P1C-4LRS	P1S-4LRT
50	28	72,0	80	64	16	21	21	M16x1,5	22	22	15,0	15°	0,25	P1C-4MRS	P1S-4MRT
63	28	72,0	80	64	16	21	21	M16x1,5	22	22	15,0	15°	0,25	P1C-4MRS	P1S-4MRT
80	33	87,0	97	77	20	25	25	M20x1,5	26	32	18,0	15°	0,46	P1C-4PRS	P1S-4PRT
100	33	87,0	97	77	20	25	25	M20x1,5	26	32	18,0	15°	0,46	P1C-4PRS	P1S-4PRT
125	51	123,5	137	110	30	37	35	M27x2	36	41	25,0	15°	1,28	P1C-4RRS	P1S-4RRT

*key grip

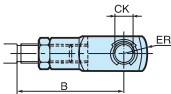
Clevis

Intended for articulated mounting of the cylinder.



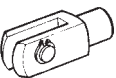
Material:
Clevis and clip galvanized steel.
Pin: Hardened steel

Supplied complete with axle.

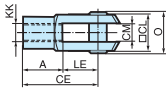


Stainless steel clevis

Stainless-steel clevis for articulated mounting of cylinder.



Material
Clevis: Stainless steel
Pin: Stainless steel
Circlips according to DIN 471: Stainless steel
Use stainless steel nut with stainless steel swivel rod eye.

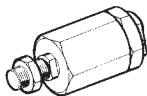


ISO 8140

Cyl.- dia. mm	A mm	B min mm	B max mm	CE mm	CK h11/E9 mm	CL mm	CM mm	ER mm	KK	LE	O mm	Weight kg	Order code Galvanised Steel	Order code Stainless Steel
32	20	45,0	52	40	10	20	10	16	M10x1,25	20	28,0	0,09	P1C-4KRC	P1S-4JRD
40	24	54,0	60	48	12	24	12	19	M12x1,25	24	32,0	0,15	P1C-4LRC	P1S-4LRD
50	32	72,0	80	64	16	32	16	25	M16x1,5	32	41,5	0,35	P1C-4MRC	P1S-4MRD
63	32	72,0	80	64	16	32	16	25	M16x1,5	32	41,5	0,35	P1C-4MRC	P1S-4MRD
80	40	90,0	100	80	20	40	20	32	M20x1,5	40	50,0	0,75	P1C-4PRC	P1S-4PRD
100	40	90,0	100	80	20	40	20	32	M20x1,5	40	50,0	0,75	P1C-4PRC	P1S-4PRD
125	56	123,5	137	110	30	55	30	45	M27x254	72,0		2,10	P1C-4RRC	P1S-4RRD

Cylinder mountings

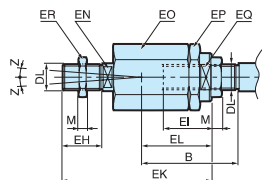
Flexo coupling



Flexo coupling for articulated mounting of piston rod.
Flexo fitting is intended to take up axial angle errors within a range of $\pm 4^\circ$.

Material

Flexo coupling, nut: Zinc-plated steel
Socket: Hardened steel
Supplied complete with galvanized adjustment nut.



Cyl.- bore mm	B min mm	B max mm	DL	EH	EI	EK	EL	EN	EO	EP	EQ	ER	M	Z	Weight kg	Order code
32	36,0	43	M10x1,25	20	23	70	31	12	30	30	19	30	5,0	4°	0,21	P1C-4KRF
40	37,0	43	M12x1,25	23	23	67	31	12	30	30	19	30	6,0	4°	0,22	P1C-4LRF
50	53,0	61	M16x1,5	40	32	112	45	19	41	41	30	41	8,0	4°	0,67	P1C-4MRF
63	53,0	61	M16x1,5	40	32	112	45	19	41	41	30	41	8,0	4°	0,67	P1C-4MRF
80	57,0	67	M20x1,5	39	42	122	56	19	41	41	30	41	10,0	4°	0,72	P1C-4PRF
100	57,0	67	M20x1,5	39	42	122	56	19	41	41	30	41	10,0	4°	0,72	P1C-4PRF
125	75,5	89	M27x2	48	48	145	60	24	55	55	32	55	13,5	4°	1,80	P1C-4RRF

Piston rod nut



Intended for fixed mounting of accessories to the piston rod.

Material: Zinc-plated steel

The cylinders are supplied complete with one zinc plated steel piston rod nut.

Stainless steel nut



Intended for fixed mounting of accessories to the piston rod.

Material: Stainless steel A2

The cylinders are supplied complete with one zinc plated steel piston rod nut.

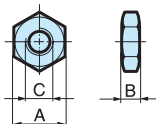
Acid-proof nut



Intended for fixed mounting of accessories to the piston rod.

Material: Acid-proof steel A4

Cylinders with acid-proof piston rod are supplied with nut of acid-proof steel

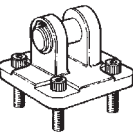


Enligt DIN 439 B

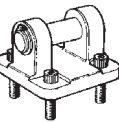
Cyl. Ø	A mm	B mm	C mm	Weight kg	Order code Piston rod nut	Order code Stainless steel nut	Order code Acid-proof nut
32	17	5,0	M10x1,25	0,007	9128985601	9126725404	0261109919
40	19	6,0	M12x1,25	0,010	0261109910	9126725405	0261109920
50	24	8,0	M16x1,5	0,021	9128985603	9126725406	0261109917
63	24	8,0	M16x1,5	0,021	9128985603	9126725406	0261109917
80	30	10,0	M20x1,5	0,040	0261109911	0261109921	0261109916
100	30	10,0	M20x1,5	0,040	0261109911	0261109921	0261109916
125	41	13,5	M27x2	0,100	0261109912	0261109922	0261109918

Cylinder mountings

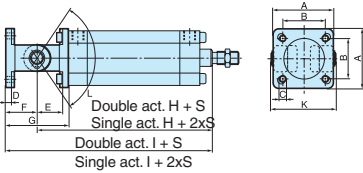
Clevis bracket MP4



Clevis bracketMP2



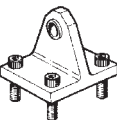
In this combination the clevis bracket MP4 is attached to the indicated cylinder.



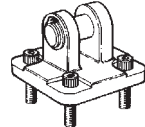
Cyl. Ø	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	K mm	L mm	Order code MP4	Order code MP2
32	48	32,5	5,5	7,0	15,0	22	44	97,0	119,0	52	104°	9121644601	9121644701
40	54	36,8	6,6	7,0	21,0	28	56	106,0	134,0	59	130°	9121644602	9121644702
50	64	46,7	6,6	8,5	19,5	28	56	113,0	141,0	67	120°	9121644603	9121644703
63	76	55,9	9,0	10,0	26,0	36	72	122,0	158,0	77	110°	9121644604	9121644704
80	94	70,0	11,0	12,0	26,0	38	76	139,0	177,0	97	80°	9121644605	9121644705
100	110	84,1	11,0	14,0	29,0	43	86	146,0	189,0	117	82°	9121644606	9121644706
125	135	104,0	14,0	15,0	35,0	50	100	165,5	215,5	137	82°	9121644607	9121644707

S=stroke length

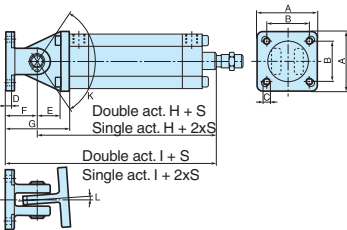
Swivel rod bracket



Clevis bracket MP4



In this combination the swivel rod bracket is attached to the indicated cylinder.



Cyl. Ø	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	K mm	L mm	Order code Swivel rod bracket	Order code MP2
32	48	32,5	5,5	7,0	15,0	22	44	97,0	119,0	104°	5,7°	9121568601	9121644601
40	54	36,8	6,6	7,0	21,0	28	56	106,0	134,0	130°	5,5°	9121568602	9121644602
50	64	46,7	6,6	8,5	19,5	28	56	113,0	141,0	120°	5,2°	9121568603	9121644603
63	76	55,9	9,0	10,0	26,0	36	72	122,0	158,0	110°	5,1°	9121568604	9121644604
80	94	70,0	11,0	12,0	26,0	38	76	139,0	177,0	80°	4,6°	9121568605	9121644605
100	110	84,1	11,0	14,0	29,0	43	86	146,0	189,0	82°	4,4°	9121568606	9121644606
125	135	104,0	14,0	15,0	35,0	50	100	165,5	215,5	82°	4,4°	9121568607	9121644607

S=stroke length

The P1A range of cylinders is intended for use in a wide range of applications. The cylinders are particularly suitable for lighter duties in the packaging, food and textile industries. Careful design and high quality manufacture throughout ensure long service life and optimum economy. Mounting dimensions fully in accordance with ISO 6432 and CETOP RP52P greatly simplifies installation and world-wide interchangeability.



- Mini cylinder according to ISO 6432
- Available in 10 to 25 mm bores
- Corrosion resistant design and low weight construction
- Magnetic piston as standard
- End stroke buffers for long service life

Operating information

Working pressure: Max 10 bar
Temperature range: -20°C to +80°C Ø10-25mm

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

For technical information see CD

Double acting buffer cushioning

Ø10mm - (M5)

Stroke mm	Order code
10	P1A-S010DS-0010
15	P1A-S010DS-0015
25	P1A-S010DS-0025
30	P1A-S010DS-0030
40	P1A-S010DS-0040
50	P1A-S010DS-0050
80	P1A-S010DS-0080
100	P1A-S010DS-0100
125	P1A-S010DS-0125

Ø12mm - (M5)

Stroke mm	Order code
10	P1A-S012DS-0010
15	P1A-S012DS-0015
25	P1A-S012DS-0025
30	P1A-S012DS-0030
40	P1A-S012DS-0040
50	P1A-S012DS-0050
80	P1A-S012DS-0080
100	P1A-S012DS-0100
125	P1A-S012DS-0125
160	P1A-S012DS-0160
200	P1A-S012DS-0200

Ø16mm - (M5)

Stroke mm	Order code
10	P1A-S016DS-0010
15	P1A-S016DS-0015
25	P1A-S016DS-0025
30	P1A-S016DS-0030
40	P1A-S016DS-0040
50	P1A-S016DS-0050
80	P1A-S016DS-0080
100	P1A-S016DS-0100
125	P1A-S016DS-0125
160	P1A-S016DS-0160
200	P1A-S016DS-0200

Ø20mm - (G1/8)

Stroke mm	Order code
10	P1A-S020DS-0010
15	P1A-S020DS-0015
25	P1A-S020DS-0025
30	P1A-S020DS-0030
40	P1A-S020DS-0040
50	P1A-S020DS-0050
80	P1A-S020DS-0080
100	P1A-S020DS-0100
125	P1A-S020DS-0125
160	P1A-S020DS-0160
200	P1A-S020DS-0200
250	P1A-S020DS-0250
320	P1A-S020DS-0320

Ø25mm - (G1/8)

Stroke mm	Order code
10	P1A-S025DS-0010
15	P1A-S025DS-0015
25	P1A-S025DS-0025
30	P1A-S025DS-0030
40	P1A-S025DS-0040
50	P1A-S025DS-0050
80	P1A-S025DS-0080
100	P1A-S025DS-0100
125	P1A-S025DS-0125
160	P1A-S025DS-0160
200	P1A-S025DS-0200
250	P1A-S025DS-0250
320	P1A-S025DS-0320

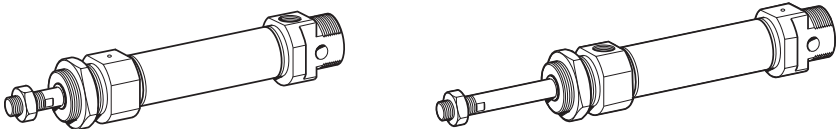
Sensors



For sensors see page 96.

 Indicates stocked product.

Single acting push type (Spring return for retract stroke)



Ø10mm - (M5)	
Stroke mm	Order code
10	P1A-S010SS-0010
15	P1A-S010SS-0015
25	P1A-S010SS-0025
40	P1A-S010SS-0040
50	P1A-S010SS-0050
80	P1A-S010SS-0080

Ø16mm - (M5)	
Stroke mm	Order code
10	P1A-S016SS-0010
15	P1A-S016SS-0015
25	P1A-S016SS-0025
40	P1A-S016SS-0040
50	P1A-S016SS-0050
80	P1A-S016SS-0080

Ø25mm - (G1/8)	
Stroke mm	Order code
10	P1A-S025SS-0010
15	P1A-S025SS-0015
25	P1A-S025SS-0025
40	P1A-S025SS-0040
50	P1A-S025SS-0050
80	P1A-S025SS-0080

Ø12mm - (M5)	
Stroke mm	Order code
10	P1A-S012SS-0010
15	P1A-S012SS-0015
25	P1A-S012SS-0025
40	P1A-S012SS-0040
50	P1A-S012SS-0050
80	P1A-S012SS-0080

Ø20mm - (G1/8)	
Stroke mm	Order code
10	P1A-S020SS-0010
15	P1A-S020SS-0015
25	P1A-S020SS-0025
40	P1A-S020SS-0040
50	P1A-S020SS-0050
80	P1A-S020SS-0080

Single acting pull type (Spring return for advance stroke)



Ø16mm - (M5)	
Stroke mm	Order code
10	P1A-S016TS-0010
15	P1A-S016TS-0015
25	P1A-S016TS-0025
40	P1A-S016TS-0040
50	P1A-S016TS-0050

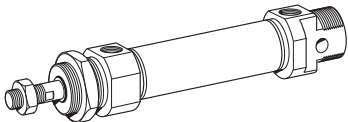
Ø20mm - (G1/8)	
Stroke mm	Order code
10	P1A-S020TS-0010
15	P1A-S020TS-0015
25	P1A-S020TS-0025
40	P1A-S020TS-0040
50	P1A-S020TS-0050
80	P1A-S020TS-0080

Ø25mm - (G1/8)	
Stroke mm	Order code
10	P1A-S025TS-0010
15	P1A-S025TS-0015
25	P1A-S025TS-0025
40	P1A-S025TS-0040
50	P1A-S025TS-0050
80	P1A-S025TS-0080

Double acting adjustable cushioning

Effective cushioning

The Mini ISO range is available with fixed end cushioning or with adjustable pneumatic cushioning, controlled by simple bleed screws for fine adjustment. The adjustable cushioned cylinders can be operated with higher mass loads and at higher cycle speeds than those with fixed end cushioning, reducing overall cycle times.



Ø16mm - (M5)	
Stroke mm	Order code
20	P1A-S016MS-0020
25	P1A-S016MS-0025
30	P1A-S016MS-0030
40	P1A-S016MS-0040
50	P1A-S016MS-0050
80	P1A-S016MS-0080
100	P1A-S016MS-0100
125	P1A-S016MS-0125
160	P1A-S016MS-0160
200	P1A-S016MS-0200

Ø20mm - (G1/8)	
Stroke mm	Order code
20	P1A-S020MS-0020
25	P1A-S020MS-0025
30	P1A-S020MS-0030
40	P1A-S020MS-0040
50	P1A-S020MS-0050
80	P1A-S020MS-0080
100	P1A-S020MS-0100
125	P1A-S020MS-0125
160	P1A-S020MS-0160
200	P1A-S020MS-0200
250	P1A-S020MS-0250
320	P1A-S020MS-0320

Ø25mm - (G1/8)	
Stroke mm	Order code
20	P1A-S025MS-0020
25	P1A-S025MS-0025
30	P1A-S025MS-0030
40	P1A-S025MS-0040
50	P1A-S025MS-0050
80	P1A-S025MS-0080
100	P1A-S025MS-0100
125	P1A-S025MS-0125
160	P1A-S025MS-0160
200	P1A-S025MS-0200
250	P1A-S025MS-0250
320	P1A-S025MS-0320

 Indicates stocked product.

Design Variants

Working temperatures

High temperature

Ø10, 12 and 16mm	-10°C to +120°C Non-magnetic piston
Ø20 and 25mm	-10°C to +150°C Non-magnetic piston

External seals

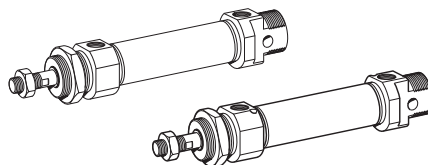
fluorinated rubber	-20°C to +80°C Magnetic piston



Double acting options

Double-acting adjustable cushioning	Ø16 - Ø25 (not for seal material type F and L)

Double-acting non-adjustable cushioning	Ø10 - Ø25

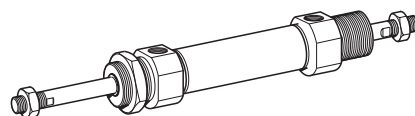


Double-acting, adjustable cushioning through rod	Ø16 - Ø25 (not for seal material type F and L)

Double-acting, non-adjustable cushioning through rod	Ø10 - Ø25

Double-acting, adjustable cushioning through rod, hollow	Ø16 - Ø25 (not for seal material type F and L)

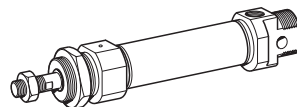
Double-acting, non-adjustable cushioning through rod, hollow	Ø10 - Ø25



Single acting options

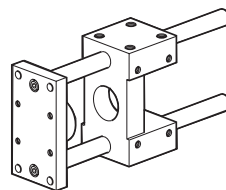
Single-acting, non-adjustable cushioning, spring return for retract stroke	Ø16 - Ø25

Single-acting, push type	Ø10 - Ø25

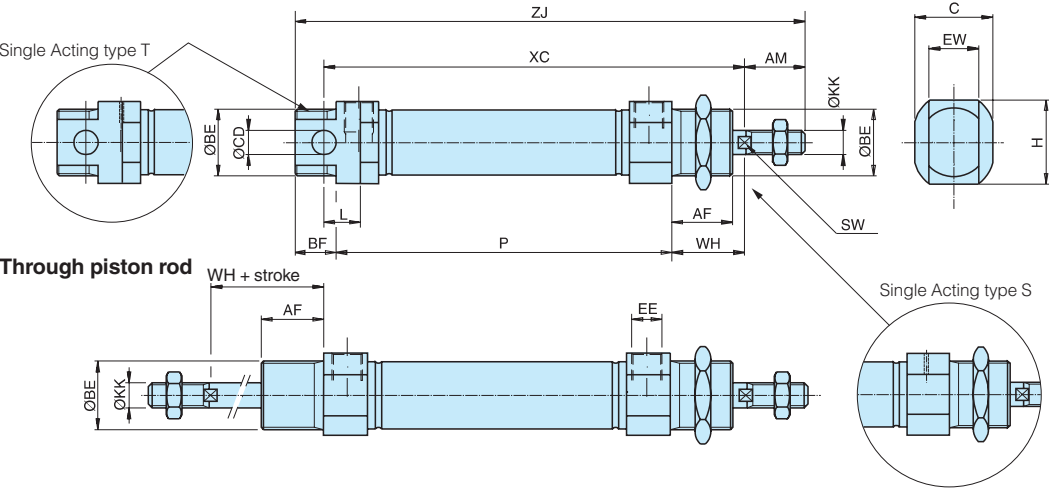


"U" style rod guidance modules, plain bearings

The P1A series cylinders can be equipped with an external guiding device to prevent the piston rod from turning. When fitted the guide provides a guided piston movement enabling the cylinder to resist turning moments on the piston rod, as well as greater transverse forces.



Dimensions
Double and single
acting cylinders



Cylinder bore mm	AM 0/-2 mm	BE	AF mm	BF mm	C mm	CDH9 mm	EE mm	EW mm	H mm	KK mm	L mm	SW mm	WH±1.2 mm
10	12	M12x1,25	12	10	13,0	4	M5	8	13,0	M4	6	—	16
12	16	M16x1,5	18	13	17,8	6	M5	12	17,8	M6	9	5	22
16 ¹⁾	16	M16x1,5	18	13	17,8	6	M5	12	17,8	M6	9	5	22
16 ²⁾	16	M16x1,5	18	13	23,8	6	M5	12	23,8	M6	9	5	22
20	20	M22x1,5	20	14	23,8	8	G1/8	16	23,8	M8	12	7	24
25	22	M22x1,5	22	14	26,8	8	G1/8	16	26,8	M10x1,25	12	9	28

1) P1A-S016DS/SS/TS
2) P1A-S016MS

Double acting cylinders

Cylinder bore mm	XC mm	ZJ mm	P mm
10	64 + stroke	84 + stroke	46 + stroke
12	75 + stroke	99 + stroke	48 + stroke
16	82 + stroke	104 + stroke	53 + stroke
20	95 + stroke	125 + stroke	67 + stroke
25	104 + stroke	132 + stroke	68 + stroke

Single-acting, spring return, type SS

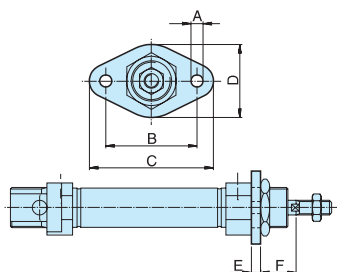
Stroke/ Cylinder bore mm	10 XC	15 XC	25 XC	40 XC	50 XC	80 XC	10 ZJ	15 ZJ	25 ZJ	40 ZJ	50 ZJ	80 ZJ	10 P	15 P	25 P	40 P	50 P	80 P
10	74	79	89	126	136	174	94	99	109	146	156	194	56	61	71	108	118	156
12	85	90	100	132	142	185	109	114	124	156	166	209	58	63	73	105	115	158
16	92	97	107	122	132	184	114	119	129	144	154	206	63	68	78	93	103	155
20	105	110	120	135	145	191	135	140	150	165	175	221	77	82	92	107	117	163
25	114	119	129	144	154	201	142	147	157	172	182	229	78	83	93	108	118	165

Single-acting, spring-extended, type TS

Stroke/ Cylinder bore mm	10 XC ³⁾	15 XC ³⁾	25 XC ³⁾	40 XC ³⁾	50 XC ³⁾	80 XC ³⁾	10 ZJ ³⁾	15 ZJ ³⁾	25 ZJ ³⁾	40 ZJ ³⁾	50 ZJ ³⁾	80 ZJ ³⁾	10 P	15 P	25 P	40 P	50 P	80 P
16	107	112	122	137	147	—	129	134	144	159	169	—	78	83	93	108	118	—
20	120	125	135	150	160	195	150	155	165	180	190	225	92	97	107	122	132	167
25	129	134	144	159	169	205	157	162	172	187	197	233	93	98	108	123	133	169

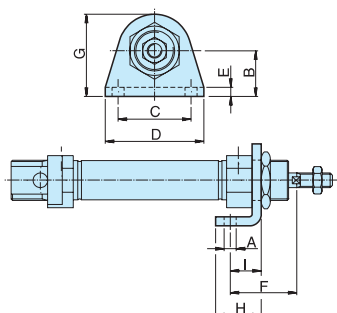
3) With piston rod retracted, as shown in the dimension drawing
Length tolerances ±1 mm
Stroke length tolerances +1,5/0 mm

Cylinder Mountings



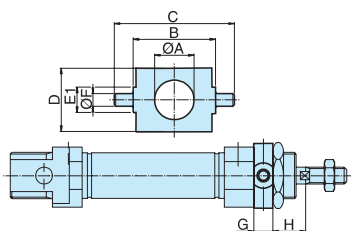
Flange-MF8

Cylinder Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	Order code
10	4,5	30	40	22	3	13	P1A-4CMB
12-16	5,5	40	52	30	4	18	P1A-4DMB
20	6,6	50	66	40	5	19	P1A-4HMB
25	6,6	50	66	40	5	23	P1A-4HMB



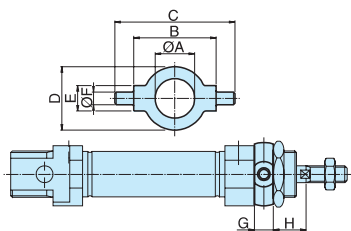
Foot-MS3

Cylinder Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	Order code
10	4,5	16	25	35	3	24	26,0	16	11	P1A-4CMF
12-16	5,5	20	32	42	4	32	32,5	20	14	P1A-4DMF
20	6,5	25	40	54	5	36	45,0	25	17	P1A-4HMF
25	6,5	25	40	54	5	40	45,0	25	17	P1A-4HMF



Cover trunnion

Cylinder Ø mm	A mm	B h14 mm	C mm	D mm	E1 mm	Fe9 mm	G mm	H mm	Order code
10	12,5	26	38	20	9	4	6	10	P1A-4CMZ
12-16	16,5	38	58	25	13	6	8	14	P1A-4DMZ
20	22,5	46	66	30	13	6	8	16	P1A-4HMZ
25	22,5	46	66	30	13	6	8	20	P1A-4HMZ

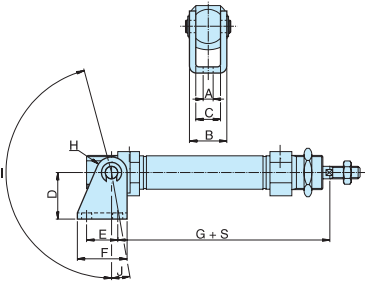
Cover trunnion
Stainless steel

Cylinder Ø mm	A mm	B h14 mm	C mm	D mm	E mm	Fe9 mm	G mm	H mm	Order code
10	12,5	26	38	20	8	4	6	10	P1A-4CMJZ
12-16	16,5	38	58	25	10	6	8	14	P1A-4DMJZ
20	22,5	46	66	30	10	6	8	16	P1A-4HMJZ
25	22,5	46	66	30	10	6	8	20	P1A-4HMJZ

Stainless Mounting nut

Cylinder Ø mm	A mm	B mm	C	Order code
10	19	6	M12x1,25	9126725405
12-16	24	8	M16x1,50	9126725406
20-25	32	11	M22x1,50	9126725407

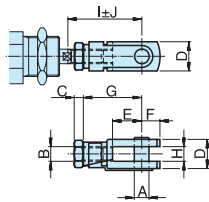
Cylinder Mountings



Clevis bracket

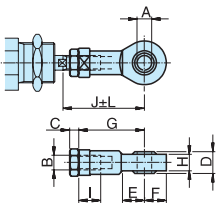
Cylinder Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I °	J °	Order code
10	4,5	13	8	24	12,5	20	65,3	5	160	17	P1A-4CMT
12	5,5	18	12	27	15,0	25	73,0	7	170	15	P1A-4DMT
16	5,5	18	12	27	15,0	25	80,0	7	170	15	P1A-4DMT
20	6,5	24	16	30	20,0	32	91,0	10	165	10	P1A-4HMT
25	6,5	24	16	30	20,0	32	100,0	10	165	10	P1A-4HMT

S=stroke



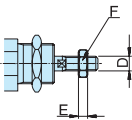
Clevis

Cylinder Ø mm	A mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	Order code
10	4	M4	2,2	8	8	5	16	4	22,0	2,0	P1A-4CRC
12-16	6	M6	3,2	12	12	7	24	6	31,0	3,0	P1A-4DRS
20	8	M8	4,0	16	16	10	32	8	40,5	3,5	P1A-4HRC
25	10	M10x1,25	5,0	20	20	12	40	10	49,0	3,0	P1A-4JRC



Swivel rod eye

Cylinder Ø mm	A mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	K mm	L mm	Order code
10	5	M4	2,2	8	10	9	27	6,0	8	33,0	9	2,0	P1A-4CRS
12-16	6	M6	3,2	9	10	10	30	6,8	9	38,5	11	1,5	P1A-4DRS
20	8	M8	4,0	12	12	12	36	9,0	12	46,0	14	2,0	P1A-4HRS
25	10	M10x1,25	5,0	14	14	14	43	10,5	15	52,5	17	2,5	P1A-4JRS



Stainless Rod nut

Cylinder Ø mm	D	F mm	E mm	Order code
10	M4	7	2,2	9127385121
12-16	M6	10	3,2	9127385122
20	M8	13	4,0	9127385123
25	M10x1,25	17	5,0	9126725404

Stainless steel cylinders, ISO 6432, Bore 10 - 25mm P1S

This range of stainless steel cylinders has been specially designed for use in difficult environments. Hygienic design, external seals of flouriated rubber and prelubrication with our food-industry-approved grease according to USDA-H1 make the cylinders particularly suitable for food industry use. All cylinders have magnetic pistons for proximity position sensing. Fixing dimensions to ISO 6432 simplify installation and make the cylinders physically interchangeable throughout the world.



- Mini - cylinders according to ISO 6432
- All stainless in 10 to 25 mm bores
- Magnetic piston as standard
- Double and single acting
- End stroke buffers for long service life
- Available with adjustable cushioning

Operating information

Working pressure: Max 10 bar
Temperature range: -20°C to +80°C Ø10-25mm

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

For technical information see CD

Double acting fixed cushioning

Ø10mm - (M5)

Stroke mm	Order code
10	P1S-S010DS-0010
15	P1S-S010DS-0015
25	P1S-S010DS-0025
40	P1S-S010DS-0040
50	P1S-S010DS-0050
80	P1S-S010DS-0080
100	P1S-S010DS-0100
125	P1S-S010DS-0125

Ø12mm - (M5)

Stroke mm	Order code
10	P1S-S012DS-0010
15	P1S-S012DS-0015
25	P1S-S012DS-0025
40	P1S-S012DS-0040
50	P1S-S012DS-0050
80	P1S-S012DS-0080
100	P1S-S012DS-0100
125	P1S-S012DS-0125
160	P1S-S012DS-0160
200	P1S-S012DS-0200

Ø16mm - (M5)

Stroke mm	Order code
10	P1S-S016DS-0010
15	P1S-S016DS-0015
25	P1S-S016DS-0025
40	P1S-S016DS-0040
50	P1S-S016DS-0050
80	P1S-S016DS-0080
100	P1S-S016DS-0100
125	P1S-S016DS-0125
160	P1S-S016DS-0160
200	P1S-S016DS-0200

Ø20mm - (G1/8)

Stroke mm	Order code
10	P1S-S020DS-0010
15	P1S-S020DS-0015
25	P1S-S020DS-0025
40	P1S-S020DS-0040
50	P1S-S020DS-0050
80	P1S-S020DS-0080
100	P1S-S020DS-0100
125	P1S-S020DS-0125
160	P1S-S020DS-0160
200	P1S-S020DS-0200
250	P1S-S020DS-0250
320	P1S-S020DS-0320

Ø25mm - (G1/8)

Stroke mm	Order code
10	P1S-S025DS-0010
15	P1S-S025DS-0015
25	P1S-S025DS-0025
40	P1S-S025DS-0040
50	P1S-S025DS-0050
80	P1S-S025DS-0080
100	P1S-S025DS-0100
125	P1S-S025DS-0125
160	P1S-S025DS-0160
200	P1S-S025DS-0200
250	P1S-S025DS-0250
320	P1S-S025DS-0320

Double acting adjustable cushioning

Ø20mm - (G1/8)

Stroke mm	Order code
15	P1S-S020MS-0015
25	P1S-S020MS-0025
40	P1S-S020MS-0040
50	P1S-S020MS-0050
80	P1S-S020MS-0080
100	P1S-S020MS-0100
125	P1S-S020MS-0125
160	P1S-S020MS-0160
200	P1S-S020MS-0200
250	P1S-S020MS-0250
320	P1S-S020MS-0320

Ø25mm - (G1/8)

Stroke mm	Order code
15	P1S-S025MS-0015
25	P1S-S025MS-0025
40	P1S-S025MS-0040
50	P1S-S025MS-0050
80	P1S-S025MS-0080
100	P1S-S025MS-0100
125	P1S-S025MS-0125
160	P1S-S025MS-0160
200	P1S-S025MS-0200
250	P1S-S025MS-0250
320	P1S-S025MS-0320

Sensors



For sensors see page 96.

Design Variants

Working temperatures

High temperature

Ø10 and Ø16mm -10°C to +120°C Non-magnetic piston
Ø20 and Ø25mm -10°C to +150°C Non-magnetic piston

Low temperature

Ø10, 12 and 16mm -40°C to +60°C Non-magnetic piston

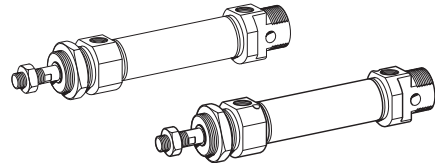


Double acting options

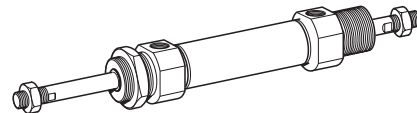
Effective end-cushioning

A version of ISO 6432 Ø10-Ø25 incorporates fixed end-cushioning, while the cylinders Ø20-Ø125 have pneumatic end-cushioning with adjusting screws for exact setting, permitting heavier loads and higher speeds for short cycle times.

Double-acting adjustable cushioning	Ø20 - Ø25 (not for seal material type F and L)
Double-acting non-adjustable cushioning	Ø10 - Ø25

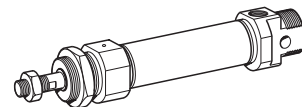


Double-acting, adjustable cushioning through rod	Ø20 - Ø25 (not for seal material type F and L)
Double-acting, non-adjustable cushioning through rod	Ø10 - Ø25
Double-acting, adjustable cushioning through rod, hollow	Ø20 - Ø25 (not for seal material type F and L)
Double-acting, non-adjustable cushioning through rod, hollow	Ø20 - Ø25 max stroke 125mm

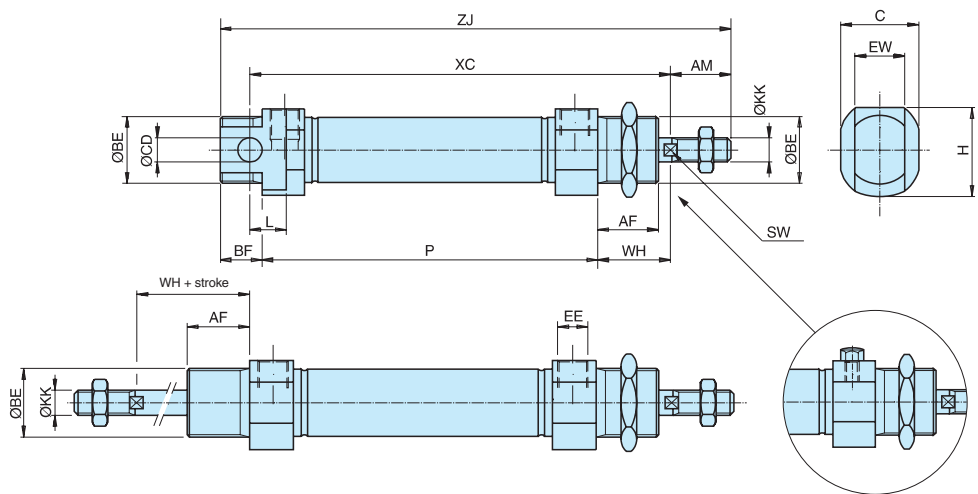


Single acting options

Single-acting, non-adjustable cushioning, spring return for retract stroke	Ø10 - Ø25
Single-acting, push type	Ø20 - Ø25



Stainless steel cylinders, ISO 6432, Bore 10 - 25mm P1S



Dimensions

Cyl. bore mm	AM 0/-2 mm	BE	AF mm	BF mm	C mm	CDH9	EE	EW mm	H mm	KK	L mm	SW mm	WH±1,2 mm
10	12	M12x1,25	12	10	14	4	M5	8	19	M4	6	—	16
12	16	M16x1,5	18	13	18	6	M5	12	19	M6	9	5	22
16	16	M16x1,5	18	13	18	6	M5	12	19	M6	9	5	22
20	20	M22x1,5	20	14	24	8	G1/8	16	29	M8	12	7	24
25	22	M22x1,5	22	14	28	8	G1/8	16	32	M10x1,25	12	9	28

Double acting cylinders

Cyl. bore mm	XC mm	ZJ mm	P mm
10	64 + stroke	84 + stroke	46 + stroke
12	75 + stroke	99 + stroke	48 + stroke
16	82 + stroke	104 + stroke	53 + stroke
20	95 + stroke	125 + stroke	67 + stroke
25	104 + stroke	132 + stroke	68 + stroke

Single acting with spring return, type SS

Stroke/ Cyl. bore mm	10 XC mm	15 XC mm	25 XC mm	40 XC mm	50 XC mm	80 XC mm	10 ZJ mm	15 ZJ mm	25 ZJ mm	40 ZJ mm	50 ZJ mm	80 ZJ mm	10 P mm	15 P mm	25 P mm	40 P mm	50 P mm	80 P mm
10	74	79	89	126	136	174	94	99	109	146	156	194	56	61	71	108	118	156
12	85	90	100	132	142	185	109	114	124	156	166	209	58	63	73	105	115	158
16	92	97	107	122	132	184	114	119	129	144	154	206	63	68	78	93	103	155
20	105	110	120	135	145	191	135	140	150	165	175	221	77	82	92	107	117	163
25	114	119	129	144	154	201	142	147	157	172	182	229	78	83	93	108	118	165

Length tolerances ±1 mm

Stroke length tolerances +1,5/0 mm

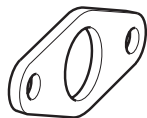
Cylinders are supplied complete with mounting and adjusting nuts.

Cylinders with through piston rod are supplied complete with two adjusting nuts and one mounting nut.

Stainless steel cylinders, ISO 6432, Bore 10 - 25mm P1S

Cylinder mountings

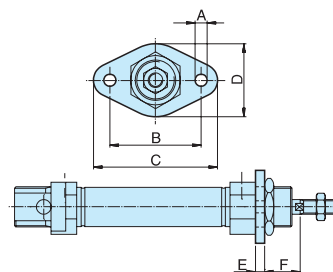
Flange-MF8



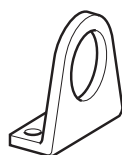
Intended for fixed attachment of the cylinder. The flange is designed for mounting on the front or rear end-covers.

Material:
Stainless steel, DIN X 10 CrNiS 18 9

Cylinder Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	Weight Kg	Order code
10	4,5	30	40	22	3	13	0,012	P1S-4CMB
12-16	5,5	40	52	30	4	18	0,025	P1S-4DMB
20	6,6	50	66	40	5	19	0,045	P1S-4HMB
25	6,6	50	66	40	5	23	0,045	P1S-4HMB



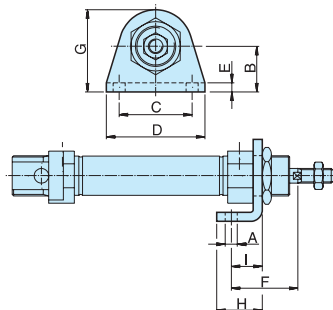
Foot-MS3



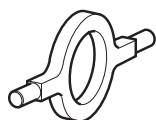
Intended for fixed attachment of the cylinder. The bracket is designed for mounting on the front or rear end-covers.

Material:
Stainless steel, DIN X 10 CrNiS 18 9

Cylinder Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	Weight Kg	Order code
10	4,5	16	25	35	3	24	26	16	11	0,020	P1S-4CMF
12-16	5,5	20	32	42	4	32	32,5	20	14	0,040	P1S-4DMF
20	6,5	25	40	54	5	36	45	25	17	0,080	P1S-4HMF
25	6,5	25	40	54	5	40	45	25	17	0,080	P1S-4HMF



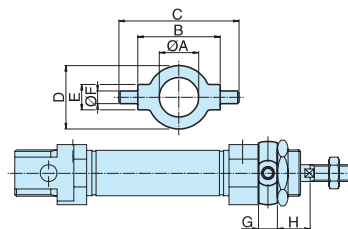
Cover trunnion



Intended for articulated mounting of the cylinder. The flange is designed for mounting on the front or rear end-covers.

Material:
Stainless steel, DIN X 10 CrNiS 18 9

Cylinder Ø	A mm	B h14 mm	C mm	D mm	E e9 mm	F mm	G mm	H mm	Weight Kg	Order code
10	12,5	26	38	20	8	4	6	10	0,014	P1A-4CMJ
12-16	16,5	38	58	25	10	6	8	14	0,033	P1A-4DMJ
20	22,5	46	66	30	10	6	8	16	0,037	P1A-4HMJ
25	22,5	46	66	30	10	6	8	20	0,037	P1A-4HMJ



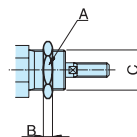
Mounting nut



Intended for fixed mounting of the cylinder.
Cylinders are supplied complete with one mounting nut.

Material:
Stainless steel, DIN X 5 CrNi 18 10

Cylinder Ø mm	A mm	B mm	C	Weight Kg	Order code
10	16	3	M12x1,25	0,009	9126725405
12-16	20	4	M16x1,50	0,018	9126725406
20-25	27	5	M22x1,50	0,042	9126725407



Stainless steel cylinders, ISO 6432, Bore 10 - 25mm P1S

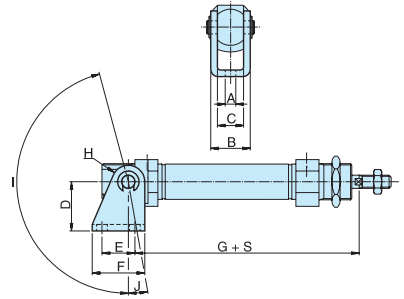
Cylinder mountings

Clevis bracket



Intended for articulated mounting of the cylinder. Supplied with shaft for mounting on the rear end cover.

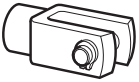
Material:
Bracket: stainless steel, DIN X 5 CrNi 18 10
Pin: tempered stainless steel, DIN X 20 Cr 13
Locking rings: stainless steel, DIN X 5 CrNi 18 10



Cylinder Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J °	Weight Kg	Order code
10	4,5	13	8	24	12,5	20	65,3	5	160	17	0,020	P1S-4CMT
12	5,5	18	12	27	15	25	73	7	170	15	0,040	P1S-4DMT
16	5,5	18	12	27	15	25	80	7	170	15	0,040	P1S-4DMT
20	6,5	24	16	30	20	32	91	10	165	10	0,080	P1S-4HMT
25	6,5	24	16	30	20	32	100	10	165	10	0,080	P1S-4HMT

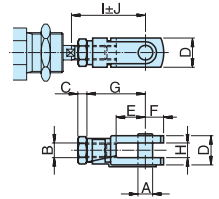
S=stroke

Clevis



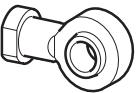
According to ISO 8140
Intended for articulated mounting of the cylinder. This mounting is adjustable in the axial direction. Supplied complete with pin.

Material:
Stainless steel, DIN X 5 CrNi 18 10



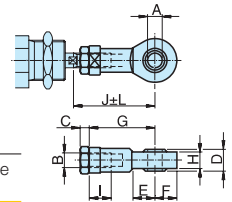
Cylinder Ø mm	A mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	Weight	Order code
10	4	M4	2,2	8	8	5	16	4	22	2	0,007	P1S-4CRD
12-16	6	M6	3,2	12	12	7	24	6	31	3	0,022	P1S-4DRD
20	8	M8	4	16	16	10	32	8	40,5	3,5	0,045	P1S-4HRD
25	10	M10x1,25	5	20	20	12	40	10	49	3	0,095	P1S-4JRD

Swivel rod eye



According to ISO 8139
Intended for articulated mounting of the cylinder. This mounting is adjustable in the axial direction.

Material:
Swivel rod eye: stainless steel, DIN X 5 CrNi 18 10
Ball: hardened stainless steel, DIN X 5 CrNi 18 10



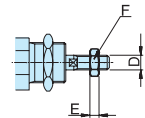
Cylinder Ø mm	A mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	K mm	L mm	Weight	Order code
10	5	M4	2,2	8	10	9	27	6	8	33	9	2	0,017	P1S-4CRT
12-16	6	M6	3,2	9	10	10	30	6,8	9	38,5	11	1,5	0,025	P1S-4DRT
20	8	M8	4	12	12	12	36	9	12	46	14	2	0,045	P1S-4HRT
25	10	M10x1,25	5	14	14	14	43	10,5	15	52,5	17	2,5	0,085	P1S-4JRT

Rod nut



Intended for fixed mounting on the piston rod. Cylinders are supplied complete with one rod nut. (cylinders with through piston rod are supplied with two rod nuts.)

Material:
Stainless steel, DIN X 5 CrNi 18 10



Cylinder Ø mm	D	F mm	E mm	Weight	Order code
10	M4	7	2,2	0,001	9127385121
12-16	M6	10	3,2	0,002	9127385122
20	M8	13	4	0,005	9127385123
25	M10x1,25	17	5	0,007	9126725404

Stainless steel cylinders, ISO 6431, Bore 32 - 125mm P1S

This range of stainless steel cylinders has been specially designed for use in difficult environments. Hygienic design, external seals of flouriated rubber and prelubrication with our food-industry-approved grease according to USDA-H1 make the cylinders particularly suitable for food industry use.

All cylinders have magnetic pistons for proximity position sensing. Fixing dimensions to ISO 6431 simplify installation and make the cylinders physically interchangeable throughout the world.



- Round cylinder to ISO 6431
- All stainless steel
- Clean, smooth washdown design
- Magnetic piston as standard
- Adjustable cushioning for long service life
- Complete range of mountings and sensors

Operating information

Working pressure: Max 10 bar
Temperature range: -20°C to +70°C

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

For technical information see CD

Standard stroke lengths

Ø32mm - (G1/8)

Stroke mm	Order code
25	P1S-D032MS-0025
50	P1S-D032MS-0050
80	P1S-D032MS-0080
100	P1S-D032MS-0100
125	P1S-D032MS-0125
160	P1S-D032MS-0160
200	P1S-D032MS-0200
250	P1S-D032MS-0250
320	P1S-D032MS-0320
400	P1S-D032MS-0400
500	P1S-D032MS-0500

Ø63mm - (G3/8)

Stroke mm	Order code
25	P1S-D063MS-0025
50	P1S-D063MS-0050
80	P1S-D063MS-0080
100	P1S-D063MS-0100
125	P1S-D063MS-0125
160	P1S-D063MS-0160
200	P1S-D063MS-0200
250	P1S-D063MS-0250
320	P1S-D063MS-0320
400	P1S-D063MS-0400
500	P1S-D063MS-0500

Ø100mm - (G1/2)

Stroke mm	Order code
25	P1S-L100MS-0025
50	P1S-L100MS-0050
80	P1S-L100MS-0080
100	P1S-L100MS-0100
125	P1S-L100MS-0125
160	P1S-L100MS-0160
200	P1S-L100MS-0200
250	P1S-L100MS-0250
320	P1S-L100MS-0320
400	P1S-L100MS-0400
500	P1S-L100MS-0500

Ø40mm - (G1/4)

Stroke mm	Order code
25	P1S-D040MS-0025
50	P1S-D040MS-0050
80	P1S-D040MS-0080
100	P1S-D040MS-0100
125	P1S-D040MS-0125
160	P1S-D040MS-0160
200	P1S-D040MS-0200
250	P1S-D040MS-0250
320	P1S-D040MS-0320
400	P1S-D040MS-0400
500	P1S-D040MS-0500

Ø80mm - (G3/8)

Stroke mm	Order code
25	P1S-L080MS-0025
50	P1S-L080MS-0050
80	P1S-L080MS-0080
100	P1S-L080MS-0100
125	P1S-L080MS-0125
160	P1S-L080MS-0160
200	P1S-L080MS-0200
250	P1S-L080MS-0250
320	P1S-L080MS-0320
400	P1S-L080MS-0400
500	P1S-L080MS-0500

Ø125mm - (G1/2)

Stroke mm	Order code
25	P1S-L125MS-0025
50	P1S-L125MS-0050
80	P1S-L125MS-0080
100	P1S-L125MS-0100
125	P1S-L125MS-0125
160	P1S-L125MS-0160
200	P1S-L125MS-0200
250	P1S-L125MS-0250
320	P1S-L125MS-0320
400	P1S-L125MS-0400
500	P1S-L125MS-0500

Ø50mm - (G1/4)

Stroke mm	Order code
25	P1S-D050MS-0025
50	P1S-D050MS-0050
80	P1S-D050MS-0080
100	P1S-D050MS-0100
125	P1S-D050MS-0125
160	P1S-D050MS-0160
200	P1S-D050MS-0200
250	P1S-D050MS-0250
320	P1S-D050MS-0320
400	P1S-D050MS-0400
500	P1S-D050MS-0500

Sensors



For sensors see pages 96.

Stainless steel cylinders, ISO 6431, Bore 32 - 125mm P1S

Design Variants

Working temperatures

High temperature -10°C to +150°C Non-magnetic piston

Low temperature

Ø10 and Ø125mm -40°C to +40°C Non-magnetic piston

Stainless steel scraper for piston rod

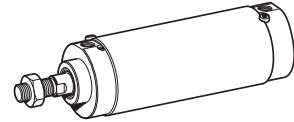
-20°C to +80°C Magnetic piston



Double acting options

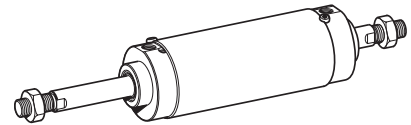
Double-acting
adjustable cushioning

Ø80 - Ø125



Double-acting
adjustable cushioning
through rod only

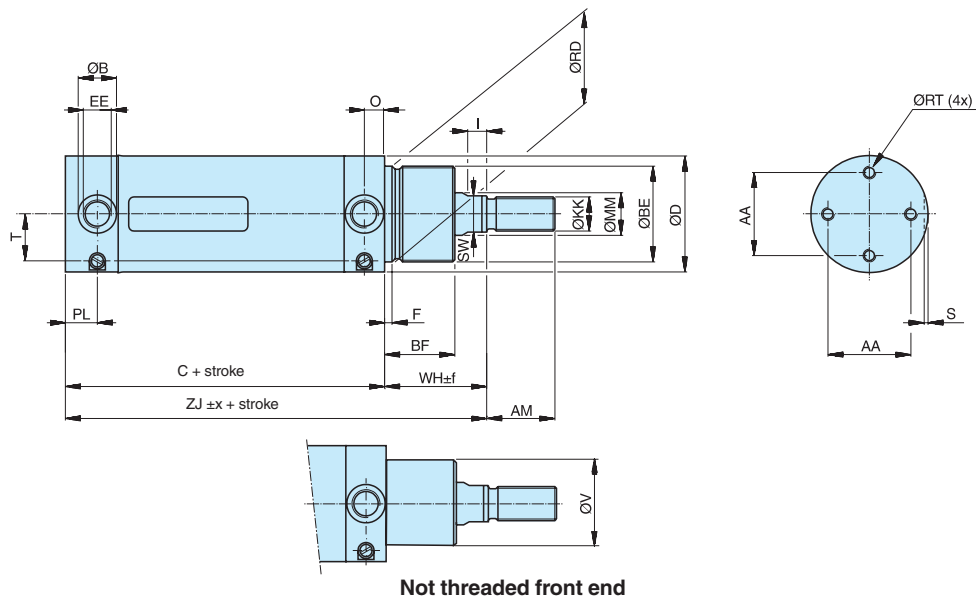
Ø80 - Ø125



Mounting options

ISO 6431 Stainless Steel Cylinders are available with a variety of integral threaded mounting holes or trunnion pegs. See Technical Catalogue CD for details.

Stainless steel cylinders, ISO 6431, Bore 32 - 125mm P1S

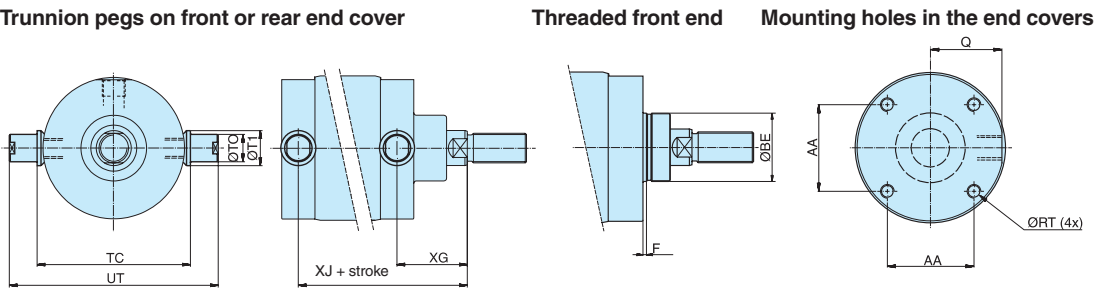
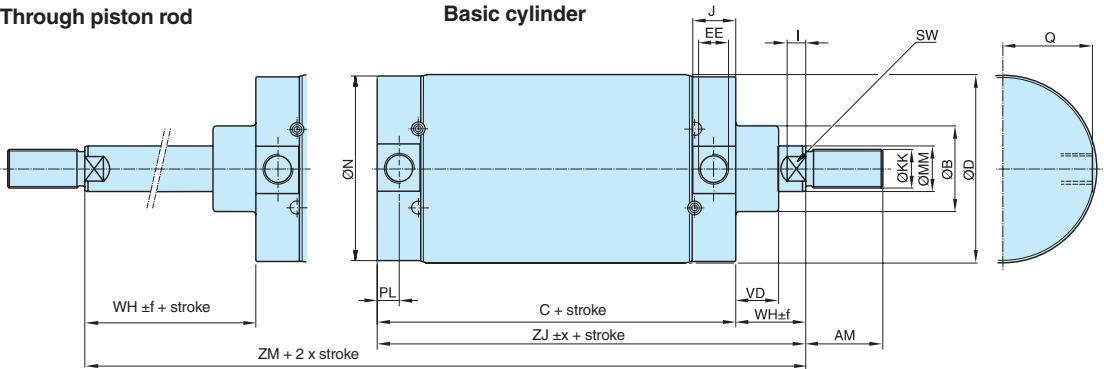


Dimensions Ø32-Ø63

Cylinder designation	AA mm	AM mm	B mm	BF mm	BE	C mm	D mm	EE mm	F mm	I mm	KK	MM mm	O mm	PL mm	RD mm	RT mm
P1S-D032M	24,5	22	15	25	M30x1,5	88	36	G1/8	4,2	6	M10x1,25	12	8	13	30	M5
P1S-D040M	30	24	18	30	M38x1,5	97	44	G1/4	4,5	9	M12x1,25	16	9,5	15	38	M6
P1S-D050M	39	32	18	33	M45x1,5	101	55	G1/4	4,5	9	M16x1,5	20	9,5	15	45	M6
P1S-D063M	49	32	25	33	M45x1,5	117	68	G3/8	4,5	9	M16x1,5	20	13,3	20,5	45	M8

Cylinder designation	S mm	SW mm	T mm	V mm	WH mm	ZJ mm	Mounting tolerances x f mm mm	Stroke length 0-500 mm mm
P1S-D032M	1,5	10	12,2	26	35,5	123,5	1,2 2,5	+2,0
P1S-D040M	1,5	14	16,5	35	44	141	1,0 2,2	+2,0
P1S-D050M	1,5	17	22	41	47	148	0,9 2,3	+2,0
P1S-D063M	1,5	17	26	41	47	164	1,4 2,3	+2,5

Stainless steel cylinders, ISO 6431, Bore 32 - 125mm P1S



Dimensions Ø80-Ø125

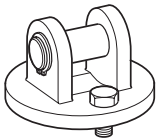
Cylinder designation	AA mm	AM mm	B mm	BE	C mm	D mm	EE mm	F mm	KK	I mm	J mm	MM mm	N mm	PL mm	Q mm
P1S-•Ø80M	46	40	50	M50x1,5	141	86	G3/8	4	M20x1,5	10	24,5	25	84	12,5	40
P1S-•100M	60	40	50	M50x1,5	158	106	G1/2	4	M20x1,5	8	30	25	104	15,5	49,5
P1S-•125M	76	54	60	M60x2	183	132	G1/2	4	M27x2	13	30	32	129	15,5	62,5

Cylinder designation	RT mm	SW mm	TC mm	TO mm	T1 mm	UT mm	VD mm	WH mm	XG mm	X3 mm	ZJ mm	ZM mm	Mounting tol. x f mm mm	Stroke length 0-500 mm mm
P1S-•Ø80M	M8	21	98	20	25	125	19	37	49,5	165,5	178	215	1,5 2,5	+2,5
P1S-•100M	M10	21	109	25	32	152	19	35	50,5	177,5	193	228	1,5 2,5	+2,5
P1S-•125M	M12	27	134	25	32	177	24	47	63	214	230	277	2,0 2,5	+4,0

Stainless steel cylinders, ISO 6431, Bore 32 - 125mm P1S

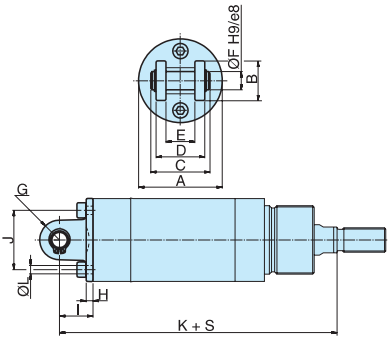
Cylinder mountings Ø32 - Ø63

Clevis bracket MP2



Intended for articulated mounting of the cylinder versions D, F or K. The bracket is mounted at the rear end cover and is supplied complete with shaft, mounting screw and O-ring for a clean joint between end cover and bracket.

Material:
Stainless steel, DIN X 5 CrNi 18 10



Cylinder Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	K mm	L mm	Weight Kg	Order code
32	35,5	20	33	26	15	10	10	4,5	18,5	25	142	5,5	0,09	P1S-4KME
40	43,5	24	35	28	17	12	12	4	19	30	160	6,5	0,12	P1S-4LME
50	54,5	26	39	32	17	12	13	4,5	22	39	170	6,5	0,19	P1S-4MME
63	67,5	34	47	40	22	16	17	6	26	49	190	8,6	0,34	P1S-4NME

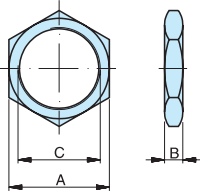
S = Stroke

Mounting nut



Intended for fixed mounting of the cylinder via the neck.

Material: stainless steel, DIN X 5 CrNi 18 10



Cylinder Ø mm	A mm	B mm	C	Weight Kg	Order code
32	36	8	M30x1,5	0,03	9127294401
40	46	10	M38x1,5	0,06	9127294402
50	55	10	M45x1,5	0,08	9127294403
63	55	10	M45x1,5	0,08	9127294403

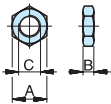
Cylinder mountings Ø32-Ø125

Rod nut



Intended for fixed mounting on the piston rod. Cylinders are supplied complete with one rod nut. (cylinders with through piston rods are supplied with two rod nuts.)

Material:
Stainless steel, DIN X 5 CrNi 18 10



Cylinder Ø	A mm	B mm	C mm	Weight Kg	Order code
32	17	5	M10x1,25	0,01	9126725404
40	19	6	M12x1,25	0,01	9126725405
50	24	8	M16x1,5	0,02	9126725406
63	24	8	M16x1,5	0,02	9126725406
80	30	10	M20x1,5	0,04	0261109921
100	30	10	M20x1,5	0,04	0261109921
125	41	13,5	M27x2	0,10	0261109922

Stainless steel cylinders, ISO 6431, Bore 32 - 125mm P1S

Cylinder mountings Ø32 - Ø125

Swivel rod eye

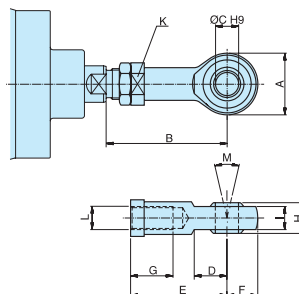
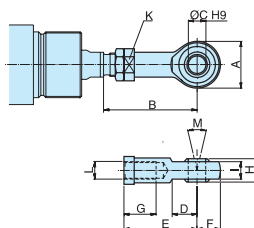


According to ISO 8139
Intended for articulated mounting of the cylinder. This mounting is adjustable in the axial direction.

Material:
Swivel rod eye: stainless steel, DIN X 5 CrNi 18 10
Ball: hardened stainless steel, DIN X 5 CrNi 18 10

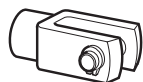
32	0,09
40	0,15
50-63	0,35
80-100	0,75
125	2,10

P1S-4JRD
P1S-4LRD
P1S-4MRD
P1S-4PRD
P1S-4RRD



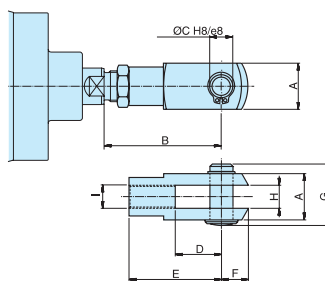
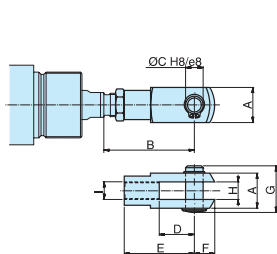
Cyl. Ø mm	A mm	B _{min} mm	B _{max} mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	K mm	L	M	Weight Kg	Order code
32	28	50	55	10	15	43	14	15	14	10,5	17	M10x1,25	24°	0,08	P1S-4JRT
40	32	56	62	12	17	50	16	22	16	12	19	M12x1,25	24°	0,12	P1S-4LRT
50	42	72	80	16	22	64	21	28	21	15	22	M16x1,5	30°	0,25	P1S-4MRT
63	42	72	80	16	22	64	21	28	21	15	22	M16x1,5	30°	0,25	P1S-4MRT
80	50	87	97	20	26	77	25	33	25	18	32	M20x1,5	30°	0,46	P1S-4PRT
100	50	87	97	20	26	77	25	33	25	18	32	M20x1,5	30°	0,46	P1S-4PRT
125	70	123,5	137	30	36	110	35	51	37	25	41	M27x2	30°	1,28	P1S-4RRT

Clevis



According to ISO 8140
Intended for articulated mounting of the cylinder. This mounting is adjustable in the axial direction. Supplied complete with pin.

Material:
Clevis: stainless steel, DIN X 10 CrNiS 18 9
Pin: stainless steel, DIN X 5 CrNi 18 10
Locking rings according to DIN 471

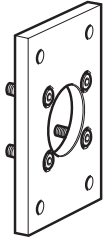


Cylinder Ø mm	A mm	B _{min} mm	B _{max} mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	Weight Kg	Order code
32	20	46	52	10	20	40	12	28	10	M10x1,25	0,09	P1S-4JRD
40	24	54	60	12	24	48	19	32	12	M12x1,25	0,15	P1S-4LRD
50	32	72	80	16	32	64	25	42	16	M16x1,5	0,35	P1S-4MRD
63	32	72	80	16	32	64	25	42	16	M16x1,5	0,35	P1S-4MRD
80	40	90	100	20	40	80	32	50	20	M20x1,5	0,75	P1S-4PRD
100	40	90	100	20	40	80	32	50	20	M20x1,5	0,75	P1S-4PRD
125	55	123,5	137	30	54	110	45	72	30	M27x2	2,10	P1S-4RRD

Stainless steel cylinders, ISO 6431, Bore 32 - 125mm P1S

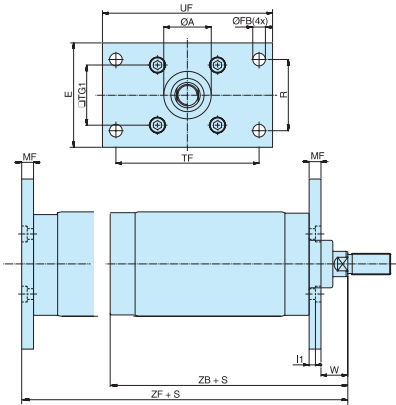
Cylinder mountings

Flange MF1/MF2



Intended for fixed attachment of cylinder version D, E, F, L, M or Q. The flange is designed for mounting on the front or rear end covers.

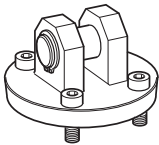
Material:
Stainless steel, DIN X 5 CrNiMo 17 13 3



Cylinder Ø mm	A mm	FB mm	E mm	R mm	TF mm	TG1 mm	UF mm	MF mm	I1 mm	W mm	ZB mm	ZF mm	Weight Kg	Order code
80	50,2	12	86	63	126	46	150	12	6	25	178	190	0,97	P1S-4PMB
100	51	14	106	75	150	60	170	12	6	23	193	205	1,42	P1S-4QMB
125	61	16	132	90	180	76	205	15	8	32	230	245	1,55	P1S-4RMB

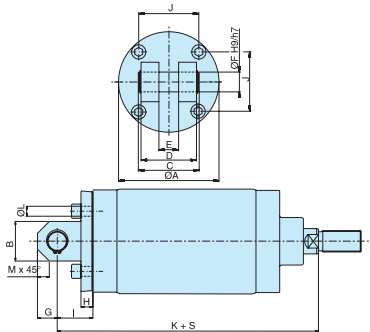
S = Stroke

Clevis bracket MP4



Intended for articulated mounting of cylinder versions D, F, L or Q. The bracket is mounted on the rear end cover and is supplied complete with shaft, mounting screw and O-ring for a clean joint between end cover and bracket.

Material:
Bracket: stainless steel, DIN X 5 CrNi 18 10
Pin: stainless steel, DIN X 5 CrNiMo 17 13 3



Cylinder Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	K mm	L mm	M mm	Weight Kg	Order code
80	80	30	57	50	16	16	15	12	32	46	210	8,6	9	0,78	P1S-4PME
100	103	42	67	60	20	20	21	12	37	60	230	10,6	12	1,42	P1S-4QME
125	127	50	77	70	25	25	25	15	45	76	275	12,6	15	2,06	P1S-4RME

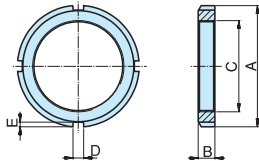
S = Stroke

Mounting nut



Intended for fixed mounting on the front end cover of cylinders according to cylinder version C or D.

Material:
Stainless steel, DIN X 5 CrNi 18 10

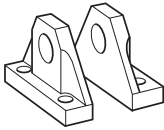


Cylinder Ø mm	A mm	B mm	C	D mm	E mm	Weight Kg	Order code
80	70	11	M50x1,5	6	2,5	0,16	9126461304
100	70	11	M50x1,5	6	2,5	0,16	9126461304
125	80	11	M60x2	7	3	0,19	9126461305

Stainless steel cylinders, ISO 6431, Bore 32 - 125mm P1S

Cylinder mountings

Bearing bracket for trunnion pegs



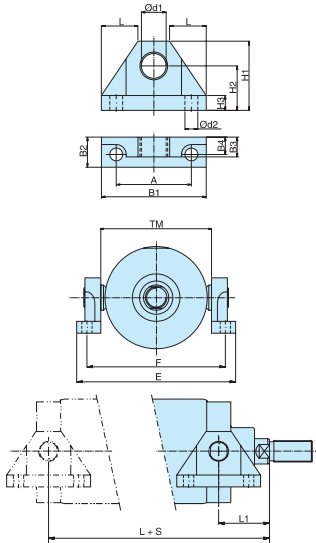
Intended for articulated mounting of the cylinder. The trunnion pegs are factory mounted on the front or rear end cover and are combined with bearing brackets. Supplied in pairs.

Material:
Bearing brackets: stainless steel, DIN X 5 CrNi 18 10
Journal bearing: stainless steel,
DIN X 5 CrNiMo 17 13 3/PTFE

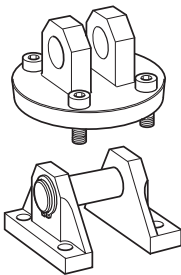
Cylinder Ø mm	A	B1	B2	B3	B4	d1	d2	H1	H2	H3	L	Weight Kg	Order code
80-100	60	90	28	15	15,5	20	11	58	37	12	34,5	0,16	P1S-4PMW
125	76	106	30	20	17,5	25	13	70	45	15	40	0,19	P1S-4QMW

Cylinder Ø mm	E	F	L1	L2	TM	Weight Kg	Order code
80	154	129	49,5	165,5	98	0,16	P1S-4PMW
100	169	144	50,5	177,5	109	0,16	P1S-4QMW
125	194	169	63	214	134	0,19	P1S-4QMW

S = Stroke

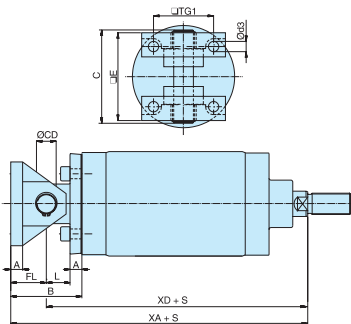


Combined mounting MP2/MP4



Intended for articulated mounting of cylinder versions D, F, L or Q. The unit is mounted on the rear end cover and is combined with bearing brackets MP2 and is supplied complete with shaft, mounting screw and O-ring for a clean joint between end cover and bracket.

Material:
Bearing brackets: stainless steel, DIN X 5 CrNi 18 10
Journal bearing: stainless steel,
DIN X 5 CrNiMo 17 13 3/PTFE
Bracket: stainless steel, DIN X 5 CrNi 18 10
Pin: stainless steel, DIN X 5 CrNiMo 17 13 3



Cylinder Ø mm	A	B	C	CD	d3	E	FL	L	TG1	XA	XD	Weight Kg	Order code
80	12	64	82	16	9	74	32	20	46	242	210	1,29	P1S-4PML
100	12	74	98	20	11	90	37	25	60	267	230	2,33	P1S-4QML
125	15	90	118	25	13	110	45	30	76	320	275	3,30	P1S-4RML

S = Stroke

The innovative P1D is a future-proof generation of ISO/VDMA cylinders. The cylinders are double-acting, with a new design of air cushioning. The P1D complies with the current ISO 6431, ISO 15552, VDMA 24562 and AFNOR installation dimension standards.



- Available in 32 to 125 mm bores
- PUR seals for long service life
- Drop-in sensors
- Corrosion resistant design
- Magnetic piston as standard
- Lubricated with food grade grease

Operating information

Working pressure:	Max 10 bar
Seals / Temperature options	
Standard:	-20°C to +80°C
High temperature:	-10°C to +150°C
Low temperature:	-40°C to +40°C
Cylinders for low pressure	
hydraulic operation:	Ø32-125mm
ATEX approval:	CE Ex II GD c T4 120°C
For ATEX specific products contact Sales Office	
For technical information see CD	

P1D Standard - Double acting

Ø32mm - (G¹/₈)

Stroke mm	Order code
25	P1D-S032MS-0025
40	P1D-S032MS-0040
50	P1D-S032MS-0050
80	P1D-S032MS-0080
100	P1D-S032MS-0100
125	P1D-S032MS-0125
160	P1D-S032MS-0160
200	P1D-S032MS-0200
250	P1D-S032MS-0250
320	P1D-S032MS-0320
400	P1D-S032MS-0400
500	P1D-S032MS-0500

Ø40mm - (G¹/₄)

Stroke mm	Order code
25	P1D-S040MS-0025
40	P1D-S040MS-0040
50	P1D-S040MS-0050
80	P1D-S040MS-0080
100	P1D-S040MS-0100
125	P1D-S040MS-0125
160	P1D-S040MS-0160
200	P1D-S040MS-0200
250	P1D-S040MS-0250
320	P1D-S040MS-0320
400	P1D-S040MS-0400
500	P1D-S040MS-0500

Ø50mm - (G¹/₄)

Stroke mm	Order code
25	P1D-S050MS-0025
40	P1D-S050MS-0040
50	P1D-S050MS-0050
80	P1D-S050MS-0080
100	P1D-S050MS-0100
125	P1D-S050MS-0125
160	P1D-S050MS-0160
200	P1D-S050MS-0200
250	P1D-S050MS-0250
320	P1D-S050MS-0320
400	P1D-S050MS-0400
500	P1D-S050MS-0500

Ø63mm - (G³/₈)

Stroke mm	Order code
25	P1D-S063MS-0025
40	P1D-S063MS-0040
50	P1D-S063MS-0050
80	P1D-S063MS-0080
100	P1D-S063MS-0100
125	P1D-S063MS-0125
160	P1D-S063MS-0160
200	P1D-S063MS-0200
250	P1D-S063MS-0250
320	P1D-S063MS-0320
400	P1D-S063MS-0400
500	P1D-S063MS-0500

Ø80mm - (G³/₈)

Stroke mm	Order code
25	P1D-S080MS-0025
40	P1D-S080MS-0040
50	P1D-S080MS-0050
80	P1D-S080MS-0080
100	P1D-S080MS-0100
125	P1D-S080MS-0125
160	P1D-S080MS-0160
200	P1D-S080MS-0200
250	P1D-S080MS-0250
320	P1D-S080MS-0320
400	P1D-S080MS-0400
500	P1D-S080MS-0500

Ø100mm - (G¹/₂)

Stroke mm	Order code
25	P1D-S100MS-0025
40	P1D-S100MS-0040
50	P1D-S100MS-0050
80	P1D-S100MS-0080
100	P1D-S100MS-0100
125	P1D-S100MS-0125
160	P1D-S100MS-0160
200	P1D-S100MS-0200
250	P1D-S100MS-0250
320	P1D-S100MS-0320
400	P1D-S100MS-0400
500	P1D-S100MS-0500

Ø125mm - (G¹/₂)

Stroke mm	Order code
25	P1D-S125MS-0025
40	P1D-S125MS-0040
50	P1D-S125MS-0050
80	P1D-S125MS-0080
100	P1D-S125MS-0100
125	P1D-S125MS-0125
160	P1D-S125MS-0160
200	P1D-S125MS-0200
250	P1D-S125MS-0250
320	P1D-S125MS-0320
400	P1D-S125MS-0400
500	P1D-S125MS-0500

The cylinders are supplied complete with a zinc plated steel piston rod nut.

Sensors



For sensors see page 96.

 Indicates stocked product.

Design Variants

P1D Tie-Rod

The P1D is available in a tie-rod version, based on the same high level technology. This future-proof cylinder is the perfect choice wherever a tie-rod cylinder is needed.

The P1D Tie-Rod uses "drop-in" P1D sensors. An ingenious multi-jointed adapter fixes the sensors in any chosen position along the stroke.



P1D Clean

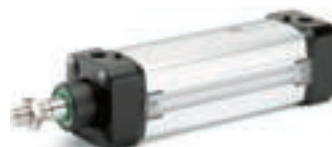
P1D Clean is a new version in our ISO cylinder system, completely designed for the foodstuffs industry. Many years' experience of the stringent requirements for hygiene, choice of material and corrosion resistance, from a wide spectrum of foodstuffs applications have guided the development of this cylinder version. Great emphasis has been put on the external design of the cylinder, choice of materials and corrosion protection.



P1D Clean without sensor function

Special order code for P1D Clean without sensor function.

This version is a permanently sealed. The cylinder has a very clean design and is intended for applications where no sensors are used.



Alternative piston rod materials

All P1D cylinders in all bores, Ø32-125 mm, can be ordered with the following piston rod materials:

- Steel, hard chromed
- Stainless steel, roller polished (standard)
- Acid-proof steel, roller polished
- Stainless steel, hard chromed



Through piston rod

All P1D cylinders in all bores, Ø32-125 mm, are available with a through rod. Cylinders with a through rod can take higher side forces thanks to the double support for the piston rod. In addition, this design makes it easier to install external position sensors.



3 and 4 position cylinders

By installing two cylinders with the same or different stroke, it is possible to build a working unit with three or four positions. This type of unit is available as factory-fitted P1D tie-rod cylinders (P1D-T) in all bores, Ø32-125 mm. Other P1D cylinders can be flange mounted back-to-back with a special mounting



Tandem version

The P1D is also available as a tandem cylinder, i.e. two cylinders connected in series. This cylinder unit has almost twice the force, which is a great advantage in restricted spaces. Tandem cylinders are available as tie-rod cylinders, P1D-T, in all bores Ø32-125 mm.



Design Variants

Low and high ambient temperature

For all bores, Ø32-125 mm, the P1D can be supplied in special high ambient temperature and low ambient temperature versions. The cylinders have seal systems, materials and grease for their particular temperature ranges. The high temperature version does not have magnetic piston (no function at high temperatures). The low temperature cylinders do have magnetic piston, but remember that most sensors are specified to -25 °C (no function below this temperature). Ambient temperature ranges:

- Low temperature: -40 °C to +40 °C
- High temperature: -10 °C to +150 °C, peaks up to +200 °C



Low pressure hydraulics

The P1D in bores Ø32 - 125 mm can be supplied with special seals for operation with low pressure hydraulics up to 10 bar. Temperature range -20 °C to +80°C.

P1D complete working unit

P1D Standard can be ordered with a factory-fitted valve and piping. The valve series is the robust and compact Viking series, with product code P2L-A (for cylinder bores 32-63), P2L-B (for cylinder bores 80-100) and P2L-D (for cylinder bore 125).



P1D cylinder with piston rod locking

The P1D cylinder is available in a version with piston rod locking, allowing the piston rod to be locked in any position. The lock unit, of the air/spring actuated type, is integrated in the front end piece of the cylinder.



P1D Standard with piston rod locking



P1D Clean with piston rod locking

Cylinders complete with mountings, sensors, speed regulation, fittings etc.

Order a complete working unit on a single order code instead of a lot of separate numbers. Save time in all phases, such as purchasing, goods reception and installation. A factory installed complete cylinder makes your work more efficient!

For complete ordering information see Technical Catalogue CD.

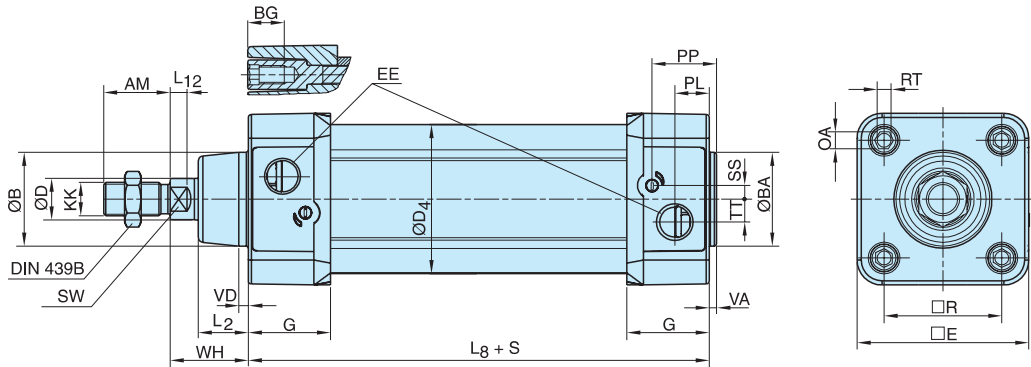


Operation with dry piston rod

In many applications, primarily in the foodstuffs industry, the cylinders are cleaned frequently. This means that the film of grease on the piston rod is washed off, which puts special demands on the materials and the design of the piston rod seal system (scraper ring and piston rod seal). A piston rod seal system specially designed for dry rod operation is available as options for this type of application, for all bores of P1D cylinders. The system has a specially designed L-shaped seal and the material is self-lubricating, high molecular weight plastics (HDPE) – the same system as in our previous P1C cylinders, with proven function.



P1D Standard



Dimensions

Cylinder bore mm	AM mm	B mm	BA mm	BG mm	D mm	D4 mm	E mm	EE mm	G mm	KK	L2 mm	L8 mm	L12 mm
32	22	30	30	16	12	45,0	50,0	G1/8	28,5	M10x1,25	16,0	94	6,0
40	24	35	35	16	16	52,0	57,4	G1/4	33,0	M12x1,25	19,0	105	6,5
50	32	40	40	16	20	60,7	69,4	G1/4	33,5	M16x1,5	24,0	106	8,0
63	32	45	45	16	20	71,5	82,4	G3/8	39,5	M16x1,5	24,0	121	8,0
80	40	45	45	17	25	86,7	99,4	G3/8	39,5	M20x1,5	30,0	128	10,0
100	40	55	55	17	25	106,7	116,0	G1/2	44,5	M20x1,5	32,4	138	14,0
125	54	60	60	20	32	134,0	139,0	G1/2	51,0	M27x2	45,0	160	18,0

Cylinder bore mm	OA mm	PL mm	PP mm	R mm	RT mm	SS mm	SW mm	TT mm	VA mm	VD mm	WH mm
32	6,0	13,0	21,8	32,5	M6	4,0	10	4,5	3,5	4,5	26
40	6,0	14,0	21,9	38,0	M6	8,0	13	5,5	3,5	4,5	30
50	8,0	14,0	23,0	46,5	M8	4,0	17	7,5	3,5	5,0	37
63	8,0	16,4	27,4	56,5	M8	6,5	17	11,0	3,5	5,0	37
80	6,0	16,0	30,5	72,0	M10	0	22	15,0	3,5	4,0	46
100	6,0	18,0	35,8	89,0	M10	0	22	20,0	3,5	4,0	51
125	8,0	28,0	40,5	110,0	M12	0	27	17,5	5,5	6,0	65

S=Stroke

Tolerances

Cylinder bore mm	B	BA	L ₈ mm	L ₉ mm	R mm	Stroke tolerance up to stroke 500 mm	Stroke tolerance for stroke over 500 mm
32	d11	d11	±0,4	±2	±0,5	+0,3/+2,0	+0,3/+3,0
40	d11	d11	±0,7	±2	±0,5	+0,3/+2,0	+0,3/+3,0
50	d11	d11	±0,7	±2	±0,6	+0,3/+2,0	+0,3/+3,0
63	d11	d11	±0,8	±2	±0,7	+0,3/+2,0	+0,3/+3,0
80	d11	d11	±0,8	±3	±0,7	+0,3/+2,0	+0,3/+3,0
100	d11	d11	±1,0	±3	±0,7	+0,3/+2,0	+0,3/+3,0
125	d11	d11	±1,0	±3	±1,1	+0,3/+2,0	+0,3/+3,0

Cylinder mountings

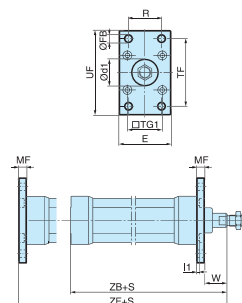
Flange MF1/MF2



Intended for fixed mounting of cylinder. Flange can be fitted to front or rear end cover of cylinder.

Materials
Flange: Surface-treated steel, black
Mounting screws acc. to DIN 6912: Zinc-plated steel 8.8

Supplied complete with mounting screws for attachment to cylinder.



According to ISO MF1/MF2, VDMA 24 562, AFNOR

Cyl. bore mm	d1 H11 mm	FB H13 mm	TG1 mm	E mm	R JS14 mm	MF JS14 mm	TF JS14 mm	UF mm	I1 -0,5 mm	W* mm	ZF* mm	ZB* mm	Weight Kg	Order code
32	30	7	32,5	45	32	10	64	80	5,0	16	130	123,5	0,23	P1C-4KMB
40	35	9	38,0	52	36	10	72	90	5,0	20	145	138,5	0,28	P1C-4LMB
50	40	9	46,5	65	45	12	90	110	6,5	25	155	146,5	0,53	P1C-4MMB
63	45	9	56,5	75	50	12	100	120	6,5	25	170	161,5	0,71	P1C-4NMB
80	45	12	72,0	95	63	16	126	150	8,0	30	190	177,5	1,59	P1C-4PMB
100	55	14	89,0	115	75	16	150	170	8,0	35	205	192,5	2,19	P1C-4QMB
125	60	16	110,0	140	90	20	180	205	10,5	45	245	230,5	3,78	P1C-4RMB

S = Stroke length

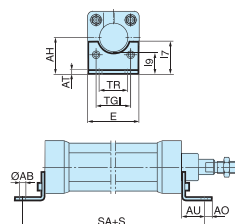
Foot bracket MS1



Intended for fixed mounting of cylinder. Foot bracket can be fitted to front and rear end covers of cylinder.

Materials
Foot bracket: Surface-treated steel, black
Mounting screws acc. to DIN 912: Zinc-plated steel 8.8

Supplied in pairs with mounting screws for attachment to cylinder.



According to ISO MS1, VDMA 24 562, AFNOR

Cyl. bore mm	AB H14 mm	TG1 mm	E mm	TR JS14 mm	AO mm	AU mm	AH JS15 mm	I7 mm	AT mm	I9 JS14 mm	SA* mm	Weight Kg	Order code
32	7	32,5	45	32	10	24	32	30	4,5	17,0	142	0,06	P1C-4KMF
40	9	38,0	52	36	8	28	36	30	4,5	18,5	161	0,08	P1C-4LMF
50	9	46,5	65	45	13	32	45	36	5,5	25,0	170	0,16	P1C-4MMF
63	9	56,5	75	50	13	32	50	35	5,5	27,5	185	0,25	P1C-4NMF
80	12	72,0	95	63	14	41	63	49	6,5	40,5	210	0,50	P1C-4PMF
100	14	89,0	115	75	15	41	71	54	6,5	43,5	220	0,85	P1C-4QMF
125	16	110,0	140	90	22	45	90	71	8,0	60,0	250	1,48	P1C-4RMF

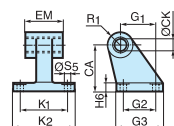
S = Stroke length

Pivot bracket with rigid bearing



Intended for flexible mounting of cylinder. The pivot bracket can be combined with clevis bracket MP2.

Materials
Pivot bracket: Surface-treated aluminium, black
Bearing: Sintered oil-bronze bushing



According to CETOP RP 107 P, VDMA 24 562, AFNOR

Cyl. bore mm	CK H9 mm	S5 H13 mm	K1 JS14 mm	K2 mm	G1 JS14 mm	G2 JS14 mm	EM mm	G3 mm	CA JS15 mm	H6 mm	R1 mm	Weight Kg	Order code
32	10	6,6	38	51	21	18	25,5	31	32	8	10,0	0,06	P1C-4KMD
40	12	6,6	41	54	24	22	27,0	35	36	10	11,0	0,08	P1C-4LMD
50	12	9,0	50	65	33	30	31,0	45	45	12	13,0	0,15	P1C-4MMD
63	16	9,0	52	67	37	35	39,0	50	50	12	15,0	0,20	P1C-4NMD
80	16	11,0	66	86	47	40	49,0	60	63	14	15,0	0,33	P1C-4PMD
100	20	11,0	76	96	55	50	59,0	70	71	15	19,0	0,49	P1C-4QMD
125	25	14,0	94	124	70	60	69,0	90	90	20	22,5	1,02	P1C-4RMD

Cylinder mountings

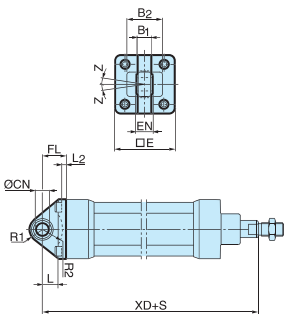
Swivel eye bracket



Intended for use together with clevis bracket GA

Material
Bracket: Surface-treated aluminium, black
Swivel bearing acc. to DIN 648K: Hardened steel

Supplied complete with mounting screws for attachment to cylinder.



According to VDMA 24 562, AFNOR

Cyl. bore mm	E mm	B1 mm	B2 mm	EN mm	R1 mm	R2 mm	FL mm	I2 mm	L mm	CN H7 mm	XD* mm	Z mm	Weight Kg	Order code
32	45	10,5	-	14	16	-	22	5,5	12	10	142	4°	0,08	P1C-4KMSA
40	52	12,0	-	16	18	-	25	5,5	15	12	160	4°	0,11	P1C-4LMSA
50	65	15,0	51	21	21	19	27	6,5	15	16	170	4°	0,20	P1C-4MMSA
63	75	15,0	-	21	23	-	32	6,5	20	16	190	4°	0,27	P1C-4NMSA
80	95	18,0	-	25	29	-	36	10,0	20	20	210	4°	0,52	P1C-4PMSA
100	115	18,0	-	25	31	-	41	10,0	25	20	230	4°	0,72	P1C-4QMSA
125	140	25,0	-	37	40	-	50	10,0	30	30	275	4°	1,53	P1C-4RMSA

S = Stroke length * Does not apply to cylinders with lock unit.

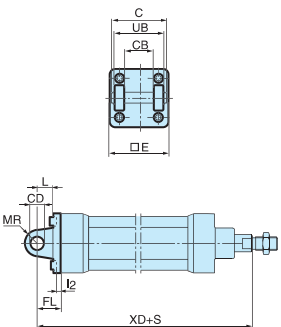
Clevis bracket MP2



Intended for flexible mounting of cylinder. Clevis bracket MP2 can be combined with clevis bracket MP4.

Materials
Clevis bracket: Surface-treated aluminium, black
Pin: Surface hardened steel
Circlips according to DIN 471: Spring steel
Mounting screws acc. to DIN 912: Zinc-plated steel 8.8

Supplied complete with mounting screws for attachment to cylinder.



According to ISO MP2, VDMA 24 562, AFNOR

Cyl. bore mm	C mm	E mm	UB h14 mm	CB H14 mm	FL ±0,2 mm	L mm	I2 mm	CD H9 mm	MR mm	XD* mm	Weight Kg	Order code
32	53	45	45	26	22	13	5,5	10	10	142	0,08	P1C-4KMT
40	60	52	52	28	25	16	5,5	12	12	160	0,11	P1C-4LMT
50	68	65	60	32	27	16	6,5	12	12	170	0,14	P1C-4MMT
63	78	75	70	40	32	21	6,5	16	16	190	0,29	P1C-4NMT
80	98	95	90	50	36	22	10,0	16	16	210	0,36	P1C-4PMT
100	118	115	110	60	41	27	10,0	20	20	230	0,64	P1C-4QMT
125	139	140	130	70	50	30	10,0	25	25	275	1,17	P1C-4RMT

S = Stroke length * Does not apply to cylinders with lock unit

Cylinder mountings

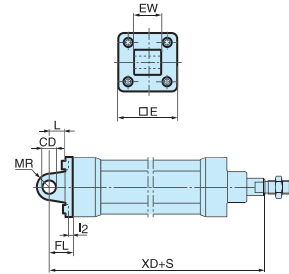
Clevis bracket MP4



Intended for flexible mounting of cylinder. Clevis bracket MP4 can be combined with clevis bracket MP2.

Materials
 Clevis bracket: Surface-treated aluminium, black
 Mounting screws acc. to DIN 912: Zinc-plated steel 8.8

Supplied complete with mounting screws for attachment to cylinder.



According to ISO MP4, VDMA 24 562, AFNOR

Cyl. bore mm	E mm	EW mm	FL mm	L mm ±0,2	I2 mm	CD mm	MR mm H9	XD* mm	Weight Kg	Order code
32	45	26	22	13	5,5	10	10	142	0,09	P1C-4KME
40	52	28	25	16	5,5	12	12	160	0,13	P1C-4LME
50	65	32	27	16	6,5	12	12	170	0,17	P1C-4MME
63	75	40	32	21	6,5	16	16	190	0,36	P1C-4NME
80	95	50	36	22	10,0	16	16	210	0,46	P1C-4PME
100	115	60	41	27	10,0	20	20	230	0,83	P1C-4QME
125	140	70	50	30	10,0	25	25	275	1,53	P1C-4RME

S = Stroke length * Does not apply to cylinders with lock unit.

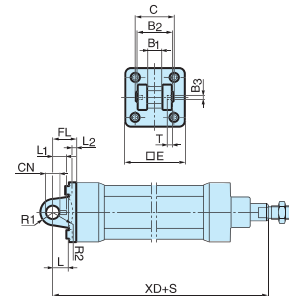
Clevis bracket GA



Intended for flexible mounting of cylinder. Clevis bracket GA can be combined with pivot bracket with swivel bearing, swivel eye bracket and swivel rod eye.

Materials
 Clevis bracket: Surface-treated aluminium
 Pin: Surface hardened steel
 Locking pin: Spring steel
 Circlips according to DIN 471: Spring steel
 Mounting screws acc. to DIN 912: Zinc-plated steel 8.8

Supplied complete with mounting screws for attachment to cylinder.



According to VDMA 24 562, AFNOR

Cyl. bore mm	C mm	E mm	B2 d12 mm	B1 H14 mm	T mm	B3 mm	R2 mm	L1 mm	FL mm ±0,2	I2 mm	L mm	CN mm F7	R1 mm	XD* mm	Weight Kg	Order code
32	41	45	34	14	3	3,3	17	11,5	22	5,5	12	10	11	142	0,09	P1C-4KMCA
40	48	52	40	16	4	4,3	20	12,0	25	5,5	15	12	13	160	0,13	P1C-4LMCA
50	54	65	45	21	4	4,3	22	14,0	27	6,5	17	16	18	170	0,17	P1C-4MMCA
63	60	75	51	21	4	4,3	25	14,0	32	6,5	20	16	18	190	0,36	P1C-4NMCA
80	75	95	65	25	4	4,3	30	16,0	36	10,0	20	20	22	210	0,58	P1C-4PMCA
100	85	115	75	25	4	4,3	32	16,0	41	10,0	25	20	22	230	0,89	P1C-4QMCA
125	110	140	97	37	6	6,3	42	24,0	50	10,0	30	30	30	275	1,75	P1C-4RMCA

S = Stroke length * Does not apply to cylinders with lock unit.

Stainless steel Pin Set GA

Cyl. bore mm	Weight Kg	Order code
32	0,05	P1C-4KMCA
40	0,06	P1C-4LMCA
50	0,07	P1C-4MMCA
63	0,07	P1C-4NMCA
80	0,17	P1C-4PMCA
100	0,31	P1C-4QMCA
125	0,54	P1C-4RMCA

Materials
 Pin: Stainless steel
 Locking pin: Stainless steel
 Circlips according to DIN 471: Stainless steel

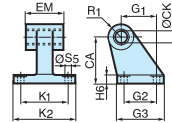
Cylinder mountings

Pivot bracket with swivel bearing



Intended for use together with clevis bracket GA.

Material
Pivot bracket: Surface-treated steel, black
Swivel bearing acc. to DIN 648K: Hardened steel



According to VDMA 24 562, AFNOR

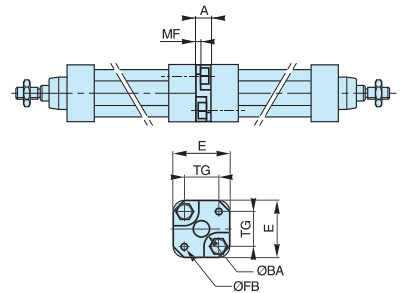
Cyl. bore mm	CN H7 mm	S5 H13 mm	K1 JS14 mm	K2 mm	EU mm	G1 JS14 mm	G2 JS14 mm	EN mm	G3 mm	CH JS15 mm	H6 mm	ER mm	Z mm	Weight Kg	Order code
32	10	6,6	38	51	10,5	21	18	14	31	32	10	16	4°	0,18	P1C-4KMA
40	12	6,6	41	54	12,0	24	22	16	35	36	10	18	4°	0,25	P1C-4LMA
50	16	9,0	50	65	15,0	33	30	21	45	45	12	21	4°	0,47	P1C-4MMA
63	16	9,0	52	67	15,0	37	35	21	50	50	12	23	4°	0,57	P1C-4NMA
80	20	11,0	66	86	18,0	47	40	25	60	63	14	28	4°	1,05	P1C-4PMA
100	20	11,0	76	96	18,0	55	50	25	70	71	15	30	4°	1,42	P1C-4QMA
125	30	14,0	94	124	25,0	70	60	37	90	90	20	40	4°	3,10	P1C-4RMA

Mounting kit



Mounting kit for back to back mounted cylinders, 3 and 4 position cylinders.

Material:
Mounting: Aluminium
Mounting screws: Zinc-plated steel 8.8



Cyl. bore mm	E mm	TG mm	ØFB mm	MF mm	A mm	ØBA mm	Weight Kg	Order code
32	50	32,5	6,5	5	16	30	0,060	P1E-6KB0
40	60	38,0	6,5	5	16	35	0,078	P1E-6LB0
50	66	46,5	8,5	6	20	40	0,162	P1E-6MB0
63	80	56,5	8,5	6	20	45	0,194	P1E-6NB0
80	100	72,0	10,5	8	25	45	0,450	P1E-6PB0
100	118	89,0	10,5	8	25	55	0,672	P1E-6QB0

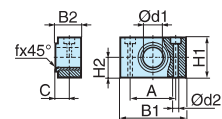
Pivot bracket for MT4



Intended for use together with central trunnion MT4.

Material
Pivot bracket: Surface-treated aluminium
Bearing acc. to DIN 1850 C: Sintered oil-bronze bushing

Supplied in pairs.



According to ISO, VDMA 24 562, AFNOR

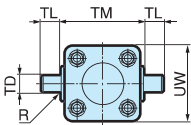
Cyl. bore mm	B1 mm	B2 mm	A mm	C mm	d1 mm	d2 H13 mm	H1 mm	H2 mm	fx45° min mm	Weight Kg	Order code
32	46	18,0	32	10,5	12	6,6	30	15	1,0	0,04*	9301054261
40	55	21,0	36	12,0	16	9,0	36	18	1,6	0,07*	9301054262
50	55	21,0	36	12,0	16	9,0	36	18	1,6	0,07*	9301054262
63	65	23,0	42	13,0	20	11,0	40	20	1,6	0,12*	9301054264
80	65	23,0	42	13,0	20	11,0	40	20	1,6	0,12*	9301054264
100	75	28,5	50	16,0	25	14,0	50	25	2,0	0,21*	9301054266
125	75	28,5	50	16,0	25	14,0	50	25	2,0	0,21*	9301054266

Cylinder mountings

Centre trunnion MT4 for P1D-S



Intended for articulated mounting of cylinder. This mounting is available for the P1D Standard and for the tie-rod design of P1D. The trunnion is factory-fitted in the centre of the cylinder or at an optional location specified by the XV-measure – Combined with pivot bracket for MT4.
Material:
Trunnion: zinc plated steel



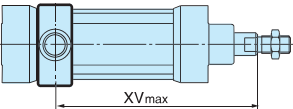
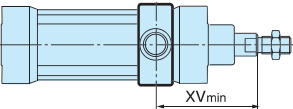
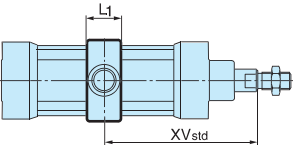
Centre trunnion MT4 for P1D-T



Trunnion centred
The central trunnion for the P1D-S and P1D-T is ordered with letter D in position 17 (no dimension specified in positions 18-20).

Trunnion with optional location
The central trunnion for the P1D-S and P1D-T is ordered with letter G in position 17 and desired XV-measure (3-digit measure in mm) in positions 18-20.

Trunnion loose
P1D-S can also be ordered with the central trunnion loosely fitted to the cylinder (not fixed in position). This allows the position to be established at the time of installation.
Ordered with letter G in position 17 and 000 in positions 18-20.



According to ISO MT4, VDMA 24 562, AFNOR

Cyl. bore	TM h14	TL h14	TD e9	R	UW	UW P1D-S	L1 P1D-T	L1 P1D-S	X1*	XV* _{min} P1D-S	XV* _{min} P1D-T	X2* P1D-S	X2* P1D-T
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
32	50	12	12	1,0	52	46	18	15	73,0	89	62	57	84
40	63	16	16	1,6	59	59	20	20	82,5	95	73	70	92
50	75	16	16	1,6	71	69	20	20	90,0	113	81	67	99
63	90	20	20	1,6	84	84	26	25	97,5	118	90	78	106
80	110	20	20	1,6	105	102	26	25	110,0	132	98	88	122
100	132	25	25	2,0	129	125	32	30	120,0	140	111	100	129
125	160	25	25	2,0	159	155	33	32	145,0	168	132	122	158

XVstd = X1 + Stroke length/2, XVmax = X2 + Stroke length
* Does not apply to cylinders with lock unit.

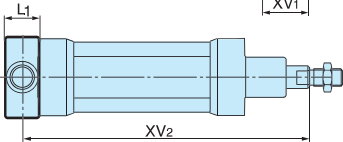
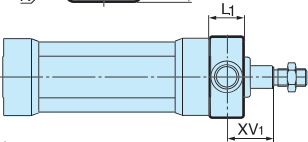
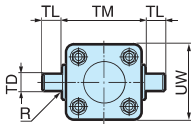
Flange mounted trunnion



Intended for articulated mounting of cylinder. This trunnion can be flange mounted on the front or rear end cover of all P1D cylinders. At your choice, you can order a complete cylinder with factory-fitted flange mounted trunnion. Individual trunnions have order code as shown to the right.

Material:
Trunnion: zinc plated steel
Screws: zinc plated steel, 8.8

Delivered complete with mounting screws for attachment to the cylinder



According to ISO MT4, VDMA 24 562, AFNOR

Cyl. bore	TM h14	TL h14	TD e9	R	UW	L1	XV ₁ *	X*	Y	Weight Kg	Order code
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		
32	50	12	12	1,0	46	14	19,5	126,5	11	0,17	P1D-4KMYF
40	63	16	16	1,6	59	19	21,0	144,0	14	0,43	P1D-4LMYF
50	75	16	16	1,6	69	19	28,0	152,0	20	0,55	P1D-4MMYF
63	90	20	20	1,6	84	24	25,5	169,5	20	1,10	P1D-4NMYF
80	110	20	20	1,6	102	24	34,5	185,5	26	1,66	P1D-4PMYF
100	132	25	25	2,0	125	29	37,0	203,0	31	3,00	P1D-4QMYF

XV₂ = X + Stroke length * Does not apply to cylinders with lock unit.

To fit a flange mounted trunnion at the front end cover of a P1D cylinder with lock unit, the piston rod must be extended. This is in order to provide the same WH dimensions as for the P1D base cylinder with dimension Y.

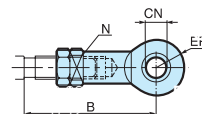
Piston rod mountings

Swivel rod eye



Intended for articulated mounting of the cylinder.
Maintenance-free PTFE.

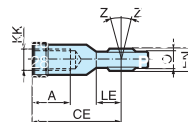
Material:
Swivel rod eye, nut: galvanized steel.
Swivel bearing according to DIN 648K: Hardened steel.



Stainless steel swivel rod eye Stainless-steel swivel rod eye for articulated mounting of cylinder.
Maintenance-free.



Materials
Swivel rod eye: Stainless steel
Swivel bearing according to DIN 648K: Stainless steel
Use stainless steel nut with stainless steel swivel rod eye.



ISO 8139

Cyl.- dia. mm	A mm	B min mm	B max mm	CE mm	CN H9 mm	EN h12 mm	ER mm	KK	LE	N* min mm	O mm	Z	Weight kg	Order code Galvanised Steel	Order code Stainless Steel
32	20	48,0	55	43	10	14	14	M10x1,25	15	17	10,5	12°	0,08	P1C-4KRS	P1S-4JRT
40	22	56,0	62	50	12	16	16	M12x1,25	17	19	12,0	12°	0,12	P1C-4LRS	P1S-4LRT
50	28	72,0	80	64	16	21	21	M16x1,5	22	22	15,0	15°	0,25	P1C-4MRS	P1S-4MRT
63	28	72,0	80	64	16	21	21	M16x1,5	22	22	15,0	15°	0,25	P1C-4MRS	P1S-4MRT
80	33	87,0	97	77	20	25	25	M20x1,5	26	32	18,0	15°	0,46	P1C-4PRS	P1S-4PRT
100	33	87,0	97	77	20	25	25	M20x1,5	26	32	18,0	15°	0,46	P1C-4PRS	P1S-4PRT
125	51	123,5	137	110	30	37	35	M27x2	36	41	25,0	15°	1,28	P1C-4RRS	P1S-4RRT

*key grip

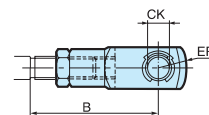
Clevis



Intended for articulated mounting of the cylinder.

Material:
Clevis and clip galvanized steel.
Pin: Hardened steel

Supplied complete with axle.

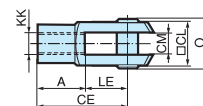


Stainless steel clevis



Stainless-steel clevis for articulated mounting of cylinder.

Material
Clevis: Stainless steel
Pin: Stainless steel
Circlips according to DIN 471: Stainless steel
Use stainless steel nut with stainless steel swivel rod eye.



ISO 8140

Cyl.- dia. mm	A mm	B min mm	B max mm	CE mm	CK h11/E9 mm	CL mm	CM mm	ER mm	KK	LE	O mm	Weight kg	Order code Galvanised Steel	Order code Stainless Steel
32	20	45,0	52	40	10	20	10	16	M10x1,25	20	28,0	0,09	P1C-4KRC	P1S-4JRD
40	24	54,0	60	48	12	24	12	19	M12x1,25	24	32,0	0,15	P1C-4LRC	P1S-4LRD
50	32	72,0	80	64	16	32	16	25	M16x1,5	32	41,5	0,35	P1C-4MRC	P1S-4MRD
63	32	72,0	80	64	16	32	16	25	M16x1,5	32	41,5	0,35	P1C-4MRC	P1S-4MRD
80	40	90,0	100	80	20	40	20	32	M20x1,5	40	50,0	0,75	P1C-4PRC	P1S-4PRD
100	40	90,0	100	80	20	40	20	32	M20x1,5	40	50,0	0,75	P1C-4PRC	P1S-4PRD
125	56	123,5	137	110	30	55	30	45	M27x254	72,0		2,10	P1C-4RRC	P1S-4RRD

Piston rod mountings

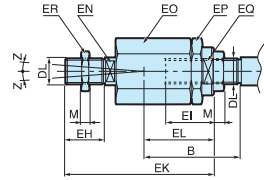
Flexo coupling



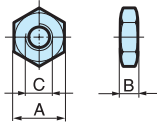
Flexo coupling for articulated mounting of piston rod.
Flexo fitting is intended to take up axial angle errors within a range of $\pm 4^\circ$.

Material
Flexo coupling, nut: Zinc-plated steel
Socket: Hardened steel

Supplied complete with galvanized adjustment nut.



Cyl. bore mm	B min mm	B max mm	DL	EH	EI	EK	EL	EN	EO	EP	EQ	ER	M	Z	Weight mm	Order code
32	36,0	43	M10x1,25	20	23	70	31	12	30	30	19	30	5,0	4°	0,21	P1C-4KRF
40	37,0	43	M12x1,25	23	23	67	31	12	30	30	19	30	6,0	4°	0,22	P1C-4LRF
50	53,0	61	M16x1,5	40	32	112	45	19	41	41	30	41	8,0	4°	0,67	P1C-4MRF
63	53,0	61	M16x1,5	40	32	112	45	19	41	41	30	41	8,0	4°	0,67	P1C-4MRF
80	57,0	67	M20x1,5	39	42	122	56	19	41	41	30	41	10,0	4°	0,72	P1C-4PRF
100	57,0	67	M20x1,5	39	42	122	56	19	41	41	30	41	10,0	4°	0,72	P1C-4PRF
125	75,5	89	M27x2	48	48	145	60	24	55	55	32	55	13,5	4°	0,72	P1C-4RRF



Nut



Intended for fixed mounting of accessories to the piston rod.

Material: Zinc-plated steel

All P1D cylinders are delivered with a zinc-plated steel piston rod nut, except P1D Clean, which is delivered with a stainless steel piston rod nut instead.

According to DIN 439 B

Cyl. bore mm	A mm	B mm	C	Weight Kg	Order code
32	17	5,0	M10x1,25	0,007	9128985601
40	19	6,0	M12x1,25	0,010	0261109910
50	24	8,0	M16x1,5	0,021	9128985603
63	24	8,0	M16x1,5	0,021	9128985603
80	30	10,0	M20x1,5	0,040	0261109911
100	30	10,0	M20x1,5	0,040	0261109911
125	30	10,0	M20x1,5	0,100	0261109912

Stainless steel nut



Intended for fixed mounting of accessories to the piston rod.

Material: Stainless steel A2

All P1D cylinders are delivered with a zinc-plated steel piston rod nut, except P1D Clean, which is delivered with a stainless steel piston rod nut instead.

32	17	5,0	M10x1,25	0,007	9126725404
40	19	6,0	M12x1,25	0,010	9126725405
50	24	8,0	M16x1,5	0,021	9126725406
63	24	8,0	M16x1,5	0,021	9126725406
80	30	10,0	M20x1,5	0,040	0261109921
100	30	10,0	M20x1,5	0,040	0261109921
125	30	10,0	M20x1,5	0,100	0261109922

Acid-proof nut



Intended for fixed mounting of accessories to the piston rod.

Material: Acid-proof steel A4

Cylinders with acid-proof piston rod are supplied with nut of acid-proof steel

32	17	5,0	M10x1,25	0,007	0261109919
40	19	6,0	M12x1,25	0,010	0261109920
50	24	8,0	M16x1,5	0,021	0261109917
63	24	8,0	M16x1,5	0,021	0261109917
80	30	10,0	M20x1,5	0,040	0261109916
100	30	10,0	M20x1,5	0,040	0261109916
125	30	10,0	M20x1,5	0,100	0261109918

Sealing plugs

Four plastic sealing plugs are supplied with every P1D Clean cylinder. These are installed in the end cover screws which are not used for the cylinder installation. To ensure the sealing function, the plugs can be used only once i.e. they cannot be re-used. When installed in the end cover screws, they should be tapped lightly with a hammer to securely fix.



Cyl.	Order code
32	9121742201
40	9121742201
50	9121742202
63	9121742202
80	9121742203
100	9121742203
125	9121742204

P1E Cylinders are equipped as standard with magnetic pistons for proximity position sensing. A full range of sensors enables the cylinders to be integrated into the most advanced automation systems. The sensors can be fitted at any position along the cylinder stroke.

In development of P1E cylinders, great emphasis was placed on the importance of long service life and operation with unlubricated air characteristics essential for applications in demanding environments.



- Cylinder for heavy duty operation to VDMA 24562
- Bore sizes Ø160 - Ø200mm
- Tie rod design
- Hard anodised cylinder tube as standard
- Stainless steel piston rod
- Non-lube operation

Operating information

Working pressure: Max 10 bar

Seal / Temperature options:

Standard: -20°C to +70°C

High temperature: -10°C to +180°C

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

Piston rod type

Male threaded

Stainless steel as standard

Chrome plated steel

Rod gaiter versions

For technical information see CD

Tie rod cylinders - Double acting, magnetic piston, male piston rod thread

Ø160mm - (G^{3/4})

Stroke mm	Order code
25	P1E-T160MS-0025
50	P1E-T160MS-0050
80	P1E-T160MS-0080
100	P1E-T160MS-0100
125	P1E-T160MS-0125
160	P1E-T160MS-0160
200	P1E-T160MS-0200
250	P1E-T160MS-0250
320	P1E-T160MS-0320

Ø200mm - (G^{3/4})

Stroke mm	Order code
25	P1E-T200MS-0025
50	P1E-T200MS-0050
80	P1E-T200MS-0080
100	P1E-T200MS-0100
125	P1E-T200MS-0125
160	P1E-T200MS-0160
200	P1E-T200MS-0200
250	P1E-T200MS-0250
320	P1E-T200MS-0320

Cylinder mountings

Swivel rod eye Zinc plated steel

Cyl.Ø	Order code
160	P1C-4SRS
200	P1C-4SRS

Clevis Galvanised steel

Cyl.Ø	Order code
160	P1C-4SRC
200	P1C-4SRC

Clevis bracket MP2 Aluminium/Cast iron

Cyl.Ø	Order code
160	P1C-4SMT
200	P1C-4TMT

Clevis bracket MP4 Aluminium/Cast iron

Cyl.Ø	Order code
160	P1C-4SME
200	P1C-4TME

Flange MF1 and MF2 Surface treated steel

Cyl.Ø	Order code
160	P1C-4SMB
200	P1C-4TMB

Foot bracket Surface treated steel

Cyl.Ø	Order code
160	P1C-4SMF
200	P1C-4TMF

Piston rod nut Zinc plated steel

Cyl.Ø	Order code
160	9128985606
200	9128985606

Pivot bracket for MT4

Cyl.Ø	Order code
160	9301054268
200	9301054268

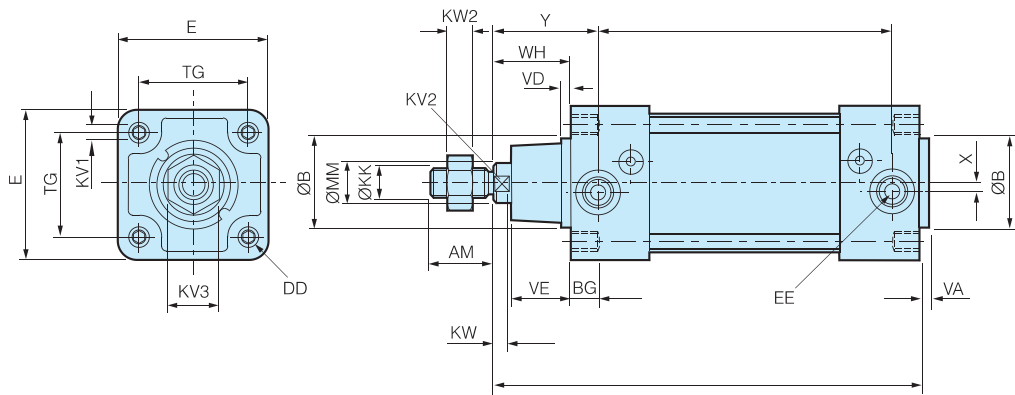
Sensors



For sensors see page 96.

 Indicates stocked product.

Basic Tie Rod and Profile cylinders



Dimensions (mm)

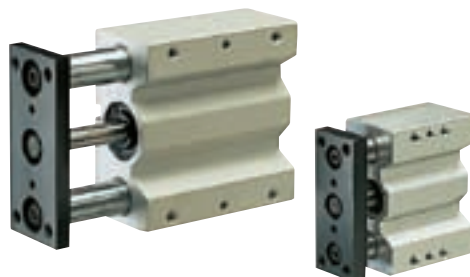
Bore Size	MM Ø	KK*	AM* +0/-2	ØB e11	WH	VD	VE	ZJ	VA	PJ	X	Y	KV3 A/F	KW2
160	40	M36x2	72	65	80	7	52	260	5	132	0	104	55	14
200	40	M36x2	72	75	95	7	60	275	5	132	0	119	55	14

Bore Size	EE	DD	KV1 A/F	BG min	KV2 A/F	KW	E	TG
160	G ³ / ₄	M16	30	24	36	16	179	140
200	G ³ / ₄	M16	30	24	36	16	216	175

Bore Size	Weight (kg)	
	0mm stroke	5mm stroke
160	11,71	0,114
200	15,45	0,126

* To ISO 6431

P5T cylinders are a modern and versatile range of cylinders with integral guides. The cylinders are double-acting, with end stop cushioning for quiet and vibration free operation. The strong guide shafts make it possible to adsorb considerable thrust forces and torque.



- Complete cylinder function with integral guidance
- Stainless steel guide rods
- Wide range of standard strokes, diameter 16-100 mm
- Flexible porting as standard
- Magnetic piston as standard with drop-in sensor technology
- End stop cushions as standard

Operating information

Working pressure Max 10 bar
Working temperature -20 °C to +80 °C

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

For technical information see CD

Double acting - Plain bearing and top & rear connections

Ø16mm - (M5)

Stroke.mm	Order code
10	P5T-C016DGSN010
25	P5T-C016DGSN025
40	P5T-C016DGSN040
50	P5T-C016DGSN050
75	P5T-C016DGSN075
100	P5T-C016DGSN100

Ø20mm - (G1/8)

Stroke.mm	Order code
25	P5T-C020DGSN025
40	P5T-C020DGSN040
50	P5T-C020DGSN050
75	P5T-C020DGSN075
100	P5T-C020DGSN100
125	P5T-C020DGSN125
150	P5T-C020DGSN150

Ø25mm - (G1/8)

Stroke.mm	Order code
25	P5T-C025DGSN025
50	P5T-C025DGSN050
75	P5T-C025DGSN075
100	P5T-C025DGSN100
125	P5T-C025DGSN125
150	P5T-C025DGSN150

Sensors



For sensors see page 96.

Ø32mm - (G1/8)

Stroke.mm	Order code
25	P5T-C032DGSN025
50	P5T-C032DGSN050
75	P5T-C032DGSN075
100	P5T-C032DGSN100
125	P5T-C032DGSN125
150	P5T-C032DGSN150
175	P5T-C032DGSN175
200	P5T-C032DGSN200

Ø40mm - (G1/8)

Stroke.mm	Order code
25	P5T-C040DGSN025
50	P5T-C040DGSN050
75	P5T-C040DGSN075
100	P5T-C040DGSN100
125	P5T-C040DGSN125
150	P5T-C040DGSN150
175	P5T-C040DGSN175
200	P5T-C040DGSN200

Ø50mm - (G1/4)

Stroke.mm	Order code
25	P5T-C050DGSN025
50	P5T-C050DGSN050
75	P5T-C050DGSN075
100	P5T-C050DGSN100
125	P5T-C050DGSN125
150	P5T-C050DGSN150
175	P5T-C050DGSN175
200	P5T-C050DGSN200

Ø63mm - (G1/4)

Stroke.mm	Order code
25	P5T-C063DGSN025
50	P5T-C063DGSN050
75	P5T-C063DGSN075
100	P5T-C063DGSN100
125	P5T-C063DGSN125
150	P5T-C063DGSN150
175	P5T-C063DGSN175
200	P5T-C063DGSN200

Ø80mm - (G3/8)

Stroke.mm	Order code
25	P5T-C080DGSN025
50	P5T-C080DGSN050
75	P5T-C080DGSN075
100	P5T-C080DGSN100
125	P5T-C080DGSN125
150	P5T-C080DGSN150
175	P5T-C080DGSN175
200	P5T-C080DGSN200

Ø100mm - (G3/8)

Stroke.mm	Order code
25	P5T-C100DGSN025
50	P5T-C100DGSN050
75	P5T-C100DGSN075
100	P5T-C100DGSN100
125	P5T-C100DGSN125
150	P5T-C100DGSN150
175	P5T-C100DGSN175
200	P5T-C100DGSN200

Indicates stocked product.

Design Variants

In addition to the standard designs, a number of variants of the P5T range are available to special order, to provide effective solutions in a large number of applications.

- Cylinders with special strokes
- Cylinders with two fixing plates
- Cylinders with adjustable stops, with cushioning
- High-temperature cylinders for the temperature range of -10°C to +150°C (not magnetic piston).

Special design for food industry applications

There is a special version of the P5T for food industry applications and other installation cases where high corrosion resistance and hygiene are required. This version has steel parts and other components in either stainless steel or special treated aluminium. Please contact Customer Service for more information.

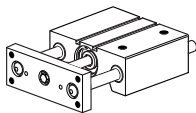
Plain bearing or recirculating ball bearings

The P5T is supplied with plain bearings as standard. This type of bearing has guide rods of greater diameter, providing excellent support for heavy loads, especially static loads. Plain bearings are highly tolerant of vibration and dirt, and are suitable for regular cleaning. Recirculating ball bearings are used for applications which require high precision and low friction.

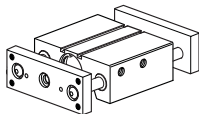
The choice should be based on the following factors:

Application requirements	Plain bearing	Recirculating ball bearings
Precision	Good	Excellent
Friction	Higher	Low
Coefficient of friction	Variable	Constant
Precision during service life	Variable	Constant
Static load capacity	Excellent	Good
Dynamic load capacity	Good, but with friction losses	Good
Vibration tolerance	Excellent	Average
Dirt tolerance	Excellent	Poor
Washing tolerance	Excellent	Poor

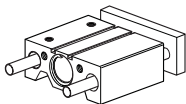
Double acting, connections on top.



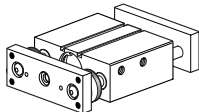
Double acting with two fixing plates, side connections are recommended.



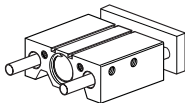
Double acting, connections at rear.



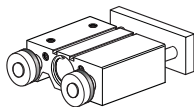
Double acting with two fixing plates and adjustable end stops with cushioning, side connections are recommended.



Double acting, connections on side.



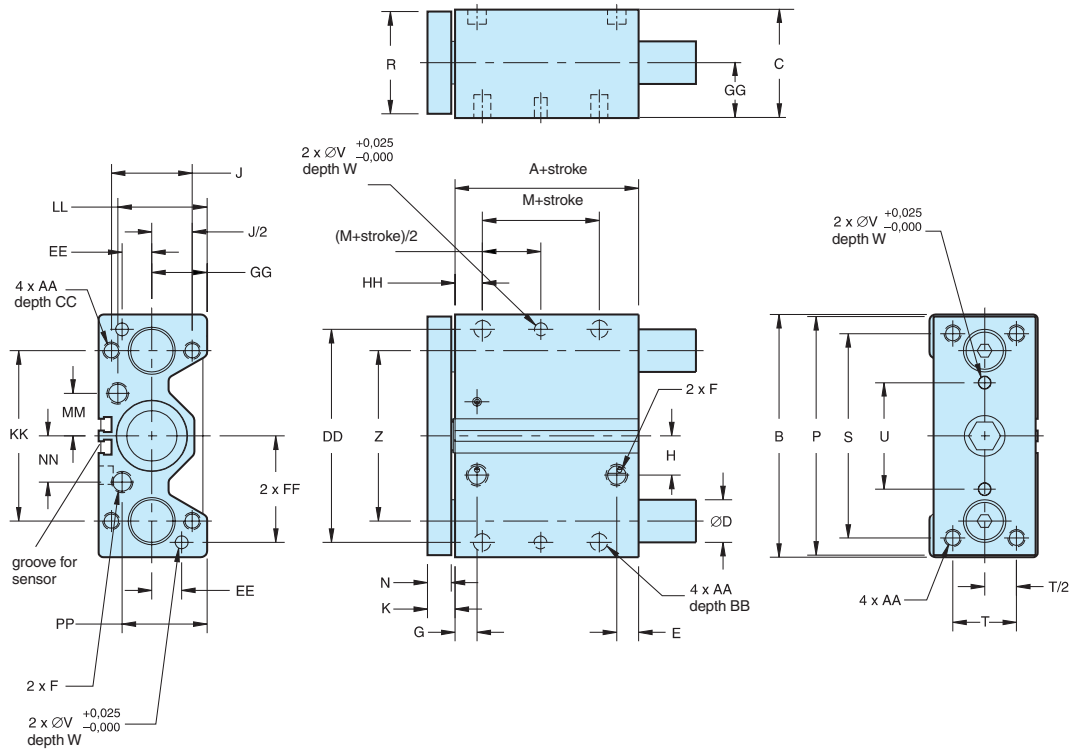
Double acting with one fixing plate adjustable end stops with cushioning, connections on side, on top or at rear.



Dimensions, P5T basic cylinder

Connection option **D**

(connection from above or rear)



Cylinder diam. mm	A mm	B mm	C mm	D1* mm	D2* mm	E mm	F mm	G mm	H mm	J mm	K mm	M mm	N mm	P mm	R mm	S mm	T mm	U mm	V mm
16	37,8	64	31	8	10	10,1	M5	10,1	7	22	9,9	7	7,9	62	25,4	52	16	20	3
20	35	74	36	10	12	19	G1/8	10	15,8	26	9,9	10	7,9	72	31,8	60	18	30	4
25	38	88	42	12	16	21	G1/8	11,4	15,5	32	9,9	10	7,9	86	38	70	26	34	4
32	36	114	51	16	20	10,3	G1/8	10,4	18,4	38	13,1	5	11,1	112	44,5	96	30	50	6
40	44	124	51	16	20	12,1	G1/8	14,9	22,5	38	13,1	10	11,1	122	44	106	30	60	6
50	44,9	140	62	20	25	14,5	G1/4	16,1	27	44	14,7	10	12,7	138	57	120	40	60	8
63	50,1	150	75	20	25	16,4	G1/4	14,5	33	44	14,7	10	12,7	148	70	130	50	72	8
80	59,5	188	95	25	30	17,5	G3/8	19	37	56	18	15	16	185	88,9	160	60	92	10
100	66**)	224	115	30	35	21,9**)	G3/8	23	40	62	18	15	16	221	108	190	80	114	10

Cylinder diam. mm	W mm	Z mm	AA mm	BB mm	CC mm	DD mm	EE mm	FF mm	GG mm	HH mm	KK mm	LL mm	MM mm	NN mm	PP mm	Piston rod Ø mm
16	6	42	M5x0,8	7,5	10	54	8	27	15	13,1	42	22,5	11,3	9,7	23	8
20	6	52	M5x0,8	7,5	10	64	10	32	17	13,1	52	26	15,4	15,4	26	10
25	6	62	M6x1,0	10	12	76	11	38	21	14,1	62	33,4	17	17	33,4	10
32	6	80	M8x1,25	11	16	100	14	50	26	12,9	80	42	20	21,7	38	16
40	6	90	M8x1,25	11	16	110	14	55	26	13,9	90	41	24	26,4	37,9	16
50	8	100	M10x1,5	12	20	124	16	62	30	14,3	100	51	29	33	44	20
63	8	110	M10x1,5	15	20	132	18	66	36,5	16,3	110	62	36	37,8	57,8	20
80	10	140	M12x1,75	18	24	166	22	83	46,5	21	140	78	45	48	75,5	25
100	10	170	M14x2,0	21	28	200	24	100	56,5	25	170	91,5	53	51	95,5	25

Length tolerance ± 1 mm

Stroke tolerance $+1.5/0$ mm

**) Stroke 25 mm, A=75 mm, E=28 mm

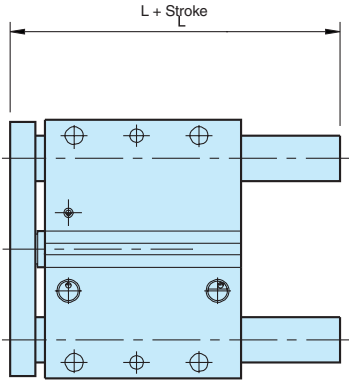
*) D1 = bearing rod diameter for recirculating ball bearing

*) D2 = bearing rod diameter for plain bearing

Dimensions, P5T basic cylinder

Standard lengths

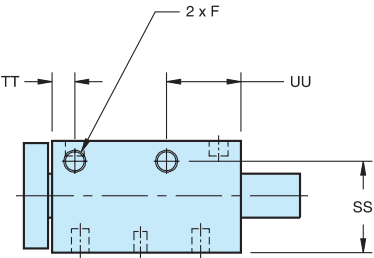
Cylinder diam mm	Stroke mm	L mm
16	10	36,2
	25, 40, 50, 75	60,2
	100	75,2
20	25, 40, 50, 75	66,9
	100, 125	91,9
25	25, 50, 75, 100	69,9
	125, 150	91,9
32	25, 50, 75, 100	77,9
	125, 150, 175, 200	116,0
40	25, 50, 75, 100	77,9
	125, 150, 175, 200	116,0
50	25, 50, 75, 100	84,0
	125, 150, 175, 200	124,1
63	25, 50, 75, 100	84,0
	125, 150, 175, 200	124,1
80	25, 50, 75, 100	101,8
	125, 150, 175, 200	140,0
100	25	122,8
	50, 75, 100	120,3
	125, 150, 175, 200	158,4



Dimensions, P5T basic cylinder

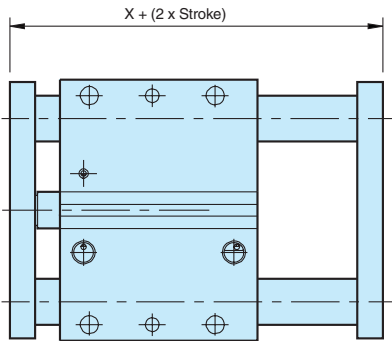
Connection option S (side connections)

Cylinder diam. mm	SS mm	TT mm	UU mm	F
16	24,1	10	20	M5
20	29,2	10	20	M5
25	35,2	11,4	25	M5
32	41,7	10,4	34	G1/8
40	41,7	14,9	34	G1/8
50	51,3	16,1	38	G1/4
63	60,7	15,6	41,8	G1/4
80	75,5	19	47	G3/8
100	83,7	23	53,3	G3/8



Dimensions, P5T basic cylinder

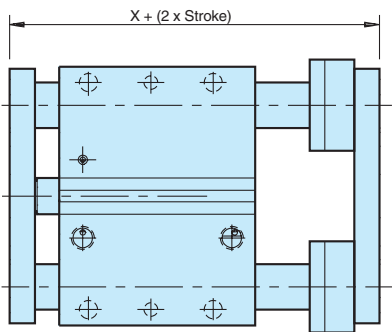
Option **D**



Please note that load capacity increases with two fixing plates, due to greater bearing distance.

Dimensions, P5T with two fixing plates and adjustable end stop with cushioning

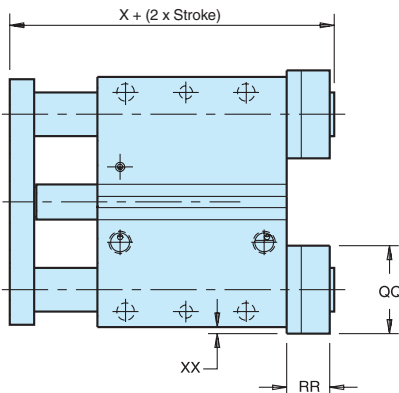
Option **A**



Cylinder diam. mm	Guide rod dia. mm	X for option			QQ mm	RR mm	XX mm
		D mm	A mm	E mm			
16	8	57,6	70,6	62,7	18,0	13,0	0
	10	57,6	70,6	62,7	24,0	13,0	1
20	10	54,9	67,9	59,9	24,0	13,0	1
	12	54,9	72,6	64,6	28,0	17,7	3
25	12	57,8	75,5	67,6	28,0	17,7	1
	16	57,8	77,5	69,6	34,0	19,7	4
32	16	62,2	81,9	70,8	34,0	19,7	0
	20	62,2	83,9	72,8	41,4	21,7	3,7
40	16	70,2	89,9	78,8	34,0	19,7	0
	20	70,2	91,9	80,8	41,4	21,7	3,7
50	20	74,3	96,0	83,3	41,4	21,7	0,7
	25	74,3	96,0	83,3	50,8	21,7	5,4
63	20	79,5	101,2	88,5	41,4	21,7	0,7
	25	79,5	101,2	88,5	50,8	21,7	5,4
80	25	95,5	117,2	101,2	50,8	21,7	1,4
	30	95,5	117,2	101,2	60,5	21,7	6,3
100	30	102,0	123,7	107,7	60,5	21,7	3,3
	35	102,0	123,7	107,7	65,0	21,7	5,5

Dimensions, P5T with adjustable end stop with cushioning

Option **E**



Global Sensors

Drop-in sensors

The completely new "drop-in" P1D sensors can easily be installed from the side in the sensor groove, at any position along the piston stroke. The sensors are completely recessed and thus mechanically protected. Choose between electronic or reed sensors and several cable lengths and 8 mm and M12 connectors.

The same standard sensors are used for all P1D versions, i.e. even for P1D Clean with the patent applied system of integrated sensors. Please note that the sensors with 8 mm and M12 connector should have cable lengths 1 m for P1D Clean to allow flexible positioning of the sensors, including longer stroke lengths. There is a double jointed adapter for the tie-rod version, which offers simple and flexible use of standard sensors.



Electronic sensors

The new electronic sensors are "Solid State", i.e. they have no moving parts at all. They are provided with short-circuit protection and transient protection as standard. The built-in electronics make the sensors suitable for applications with high on and off switching frequency, and where very long service life is required.

Reed sensors

The sensors are based on proven reed switches, which offer reliable function in many applications. Simple installation, a protected position on the cylinder and clear LED indication are important advantages of this range of sensors.

Ordering data

Output/function	Cable/connector	Weight kg	Order code
Electronic sensors , 10-30 V AC/DC			
PNP type, normally open	0,27 m PUR-cable and 8 mm snap-in male connector ¹⁾	0,007	P8S-GPSHX
PNP type, normally open	1,0 m PUR-cable and 8 mm snap-in male connector	0,013	P8S-GPSCX
PNP type, normally open	1,0 m PUR-cable and M8 screw male connector	0,013	P8S-GPCCX
PNP type, normally open	0,27 m PUR-cable and M12 screw male connector ¹⁾	0,015	P8S-GPMHX
PNP type, normally open	3 m PVC-cable without connector	0,030	P8S-GPFLX
PNP type, normally open	10 m PVC-cable without connector	0,110	P8S-GPFTX
Electronic sensors , 18-30 V DC			
ATEX Certified		 	P8S-GPFLX/EX
	CE Ex II3G EEx nA II T4X		
	CE Ex II3D 135°C IP67		
PNP type, normally open	3 m PVC-cable without connector	0,030	
Reed sensors , 10-30 V AC/DC			
Normally open	0,27 m PUR-cable and 8 mm snap-in male connector ¹⁾	0,007	P8S-GSSHX
Normally open	1,0 m PUR-cable and 8 mm snap-in male connector	0,013	P8S-GSSCX
Normally open	1,0 m PUR-cable and M8 male connector	0,013	P8S-GSCCX
Normally open	0,27 m PUR-cable and M12 screw male connector ¹⁾	0,015	P8S-GSMHX
Normally open	1,0 m PUR-cable and M12 screw male connector	0,023	P8S-GSMCX
Normally open	3 m PVC-cable without connector	0,030	P8S-GSFLX
Normally open	10 m PVC-cable without connector	0,110	P8S-GSFTX
Normally closed	5m PVC-cable without connector ²⁾	0,050	P8S-GCFPX
Reed sensors, 10-120 V AC/DC			
Normally open	3 m PVC-cable without connector	0,030	P8S-GRFLX
Reed sensors, 24-230 V AC/DC			
Normally open	3 m PVC-cable without connector ²⁾	0,030	P8S-GRFLX2

1) Not in combination with P1D Clean (too short cable)

2) Without LED

Adapter for Tie-Rod cylinders

Description	Weight kg	Order code
Double jointed adapter for cylinder P1D-T cylinder bore Ø32 to Ø125 mm and P1E-T diameter 160 – 200 mm	0,07	P8S-TMA0X



Sensor mounting

Description	Weight kg	Order code
Suitable for P1A and P1S diameter 10 - 25 mm	0,07	P8S-TMC01
Suitable for P1S diameter 32 - 63 mm	0,07	P8S-TMC02
Suitable for P1S diameter 80 - 125 mm	0,07	P8S-TMC03

Indicates stocked product.

Global Sensors

Connecting cables with one connector

The cables have an integral snap-in female connector.



Type of cable	Cable length/connector	Weight kg	Order code
Cables for sensors, complete with female connector			
Cable, Flex PVC	3 m, 8 mm round connector	0,07	9126344341
Cable, Flex PVC	10 m, 8 mm round connector	0,21	9126344342
Cable, Super Flex PVC	3 m, 8 mm round connector	0,07	9126344343
Cable, Super Flex PVC	10 m, 8 mm round connector	0,21	9126344344
Cable, Polyuretan	3 m, 8 mm round connector	0,01	9126344345
Cable, Polyuretan	10 m, 8 mm round connector	0,20	9126344346
Cable, Polyuretan	3 m, M12 connector	0,07	9126344348
Cable, Polyuretan	10 m, M12 connector	0,20	9126344349

Cable connectors



Connector	Weight kg	Order code
M8 connector	0,017	P8CS0803J
M12 connector	0,022	P8CS1204J

Ready to use connecting cables with connectors at each end

As accessories the system comprises a large number of different cables in order to meet all requirements that may arise and to make the installation simple, fast and reliable.

Cables with moulded 8 mm snap-in round contacts in both ends. The cables are available in two types, one with a straight male and female connectors respectively, and one with a straight 3-pole male connector in one end and an angled 3-pole female connector in the other end.



Technical data

Contacts

Moulded 8 mm snap-in male/female contacts.

Enclosure IP67

Cable

Conductor 3x0,25 mm² (32x0,10 mm²)
 Sheath PVC/PUR
 Colour Black

Cables with straight 3-pole male and female connectors respectively. Cables with a straight 3-pole male connector in one end and an angled 3-pole female connector in the other end.

Designation	Weight kg	Order code	Designation	Weight kg	Order code
Cable with straight contacts, 0,2 m	0,02	9121717014	Cable + straight and angled connectors, 0,2 m	0,02	9121717022
Cable with straight contacts, 0,3 m	0,02	9121717015	Cable + straight and angled connectors, 0,3 m	0,02	9121717023
Cable with straight contacts, 0,5 m	0,03	9121717016	Cable + straight and angled connectors, 0,5 m	0,03	9121717024
Cable with straight contacts, 1,0 m	0,03	9121717017	Cable + straight and angled connectors, 1,0 m	0,03	9121717025
Cable with straight contacts, 2,0 m	0,05	9121717018	Cable + straight and angled connectors, 2,0 m	0,05	9121717026
Cable with straight contacts, 3,0 m	0,07	9121717019	Cable + straight and angled connectors, 3,0 m	0,07	9121717027
Cable with straight contacts, 5,0 m	0,12	9121717020	Cable + straight and angled connectors, 5,0 m	0,12	9121717028
Cable with straight contacts, 10 m	0,23	9121717021	Cable + straight and angled connectors, 10 m	0,23	9121717029

 Indicates stocked product.

The RA is a double-acting rotary actuator of very compact design. It has a high torque and small installation dimensions. The actuator has double pistons, which transmit the turning moment to the output shaft.

The toothed piston rods act on the output shaft in a rack-and-pinion type arrangement. Each piston and toothed rod is of integral construction.

The rack-and-pinion type arrangement gives an even turning moment throughout the rotation movement.

- 90° or 180° rotation
- Shaft with key
- Uniform high torque in both directions



Operating information

Working pressure	Max 10 bar
Working temperature	-20 °C to +80 °C
Operation	Dry air, with or without lubrication

For technical information see CD

Rack & pinion type, RA series

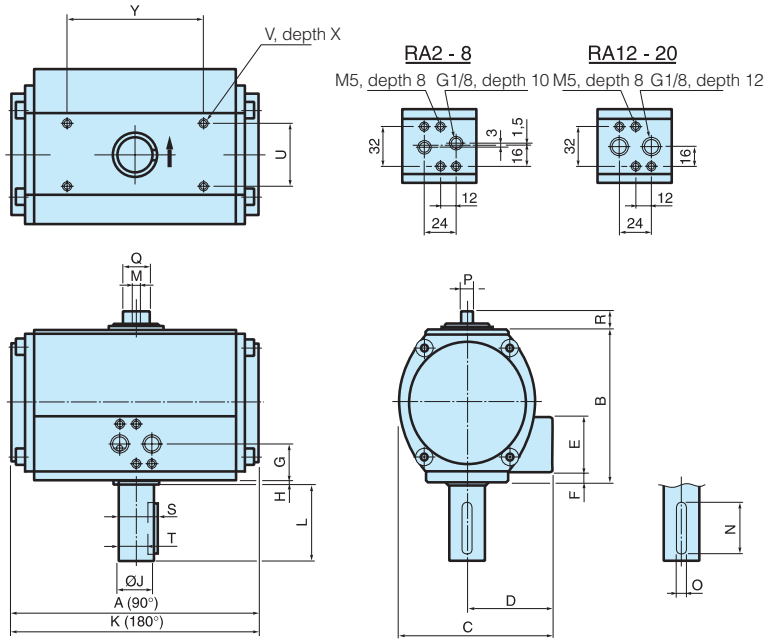
	Angle	Torque Nm at 6 bar	Port size	Order code
	90°	22,8	G1/8	RA2-90
	180°	22,8	G1/8	RA2-180
	90°	45,0	G1/8	RA4-90
	180°	45,0	G1/8	RA4-180
	90°	81,70	G1/8	RA8-90
	180°	81,70	G1/8	RA8-180
	90°	134,0	G1/4	RA12-90
	180°	134,0	G1/4	RA12-180
	90°	224,0	G1/4	RA20-90
	180°	224,0	G1/4	RA20-180

Design Variants

- Single acting (90°)
- Non-standard turning angle
- Other surface treatment

 Indicates stocked product.

Dimensions (mm)



Connection arrangements:
EURO standard
according to ISO and
Nemur- VDI/VDE 3845

The turning limits
should be determined
by external stop lugs.

Type	A	B	C	D	E	F	G	H	ØJh8	K	L	M	N	O	P
RA2	114,5	73,0	75,5	43,5	41	-	20,5	4	14	169	30	M6	19	5	7,5
RA4	133,0	90,5	87,5	47,5	41	-	20,5	4	19	215	40	M6	31	6	7,5
RA8	162,0	109,0	105,0	57,0	42	7,5	28,5	4	19	245	40	M8	31	6	11,5
RA12	194,0	118,5	121,0	67,0	43	8,0	29,5	5	28	295	60	M8	48	8	11,5
RA20	218,0	140,5	136,5	72,0	43	8,0	29,5	5	28	337	60	M8	48	8	11,5

Type	Q	R	S	T	U	V	X	Y
RA2	13	10,0	16,0	11,0	32	M5	8	50
RA4	15	11,0	21,5	15,5	32	M5	8	73
RA8	17	13,5	21,5	15,5	40	M6	10	90
RA12	20	15,0	31,0	24,0	49	M6	10	107
RA20	25	15,0	31,0	24,0	60	M6	10	120

Rotary actuators are an efficient and easy way to generate torque from compressed air, in a very compact size. They are ideal for the compact applications in a wide range of industries such as, packaging, process, electronics etc.

- Compact design
- Durable construction
- Long maintenance-free life
- High output torque/weight ratio
- Wide choice of torques available (up to 247 Nm)
- Range of mounting option, hydro-cushioning and position sensors



Operating information

Working pressure: Max 10 bar
Permissible fluid: Filtered (<5μ) with or without lubrication
Standard working temperature:
PRN/PRO 3 to 20 -5°C to +80°C
Other models -5°C to +60°C

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

For technical information see CD

PRN miniature (fixed oscillating angle)

Single vane	Torque at 6 bar (N.m)	Oscillating reference point		90°	Oscillating angle	
		45°	90°		180°	270°
PRNA1S	0,16	X		PRNA1S-90-90	PRNA1S-180-90	
PRNA3S	0,38	X		PRNA3S-90-90	PRNA3S-180-90	
PRNA10S	1,20	X		PRNA10S-90-90	PRNA10S-180-90	
PRNA20S	2,10		X	PRNA20S-90-90	PRNA20S-180-90	
PRN30SE	4,10	X		PRN30SE-90-45	PRN30SE-180-45	PRN30SE-270-45
Double vane						
PRNA3D	0,65			PRNA3D-90-45		
PRNA10D	2,54			PRNA10D-90-45		
PRNA20D	4,70			PRNA20D-90-45		
PRN30DE	9,50			PRN30DE-90-45		

PRO (adjustable oscillating angle)

Single vane	Torque at 6bar (N.m)	Oscillating angle	Order code	Torque at 6bar (N.m)	Oscillating angle	Order code
	0,38	30 to 180°	PROA3S-0-90	0,65	30 to 90°	PROA3D-0-45
	1,20	30 to 180°	PROA10S-0-90	2,54	30 to 90°	PROA10D-0-45
	2,10	30 to 180°	PROA20S-0-90	4,70	30 to 90°	PROA20D-0-45
	4,10	30 to 270°	PRO30SE-0-45	9,50	30 to 90°	PRO30DE-0-45

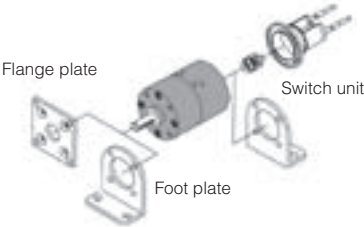
PRN high torque range (fixed oscillating angle)

Single vane	Torque at 6 bar (N.m)	Oscillating angle	
		90°	270°
PRN50SE	5,9	PRN50SE-90-45	PRN50SE-180-45
PRN150SE	18,0	PRN150SE-90-45	PRN150SE-180-45
PRN300SE	34,5	PRN300SE-90-45	PRN300SE-180-45
PRN800SE	123,0	PRN800SE-90-45	PRN800SE-180-45
Double vane (oscillating angle 45°)			
PRN50DE	12,8	PRN50DE-90-45	PRN50DE-270-45
PRN150DE	41,5	PRN150DE-90-45	PRN150DE-270-45
PRN300DE	83,0	PRN300DE-90-45	PRN300DE-270-45
PRN800DE	247,0	PRN800DE-90-45	PRN800DE-270-45

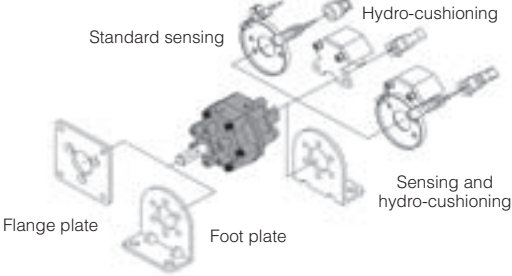
 Indicates stocked product.

Design Variants

PRO and miniature PRN ranges



PRN high torque range



Hydro-cushion for PRN050 to PRN800 rotary actuators

Rotary actuator	Hydro-cushion	Claw for hydro-cushion - Oscillating angle		
		90°	180°	270°
PRN50S	CRN50	CRN50-90-45-T	CRN50-180-45-T	CRN50-270-45-T
PRN150S	CRN150	CRN150-90-45-T	CRN150-180-45-T	CRN150-270-45-T
PRN300S	CRN300	CRN300-90-45-T	CRN300-180-45-T	CRN300-270-45-T
PRN50D	CRN50	CRN50-90-45-T		
PRN150D	CRN150	CRN150-90-45-T		
PRN300D	CRN300	CRN300-90-45-T		

P1V-S is a range of air motors with all external components made of stainless steel, which means that they can be used in food grade applications, and in all other applications where there is a risk of corrosion.

- Power from 0,02 kW to 1,2 kW
- ATEX CE Ex approved from 0,12 kW to 1,2 kW
- Designed for arduous applications
- No-lube intermittent operation as standard
- 0,2 kW and 0,3 kW Brakemotors for higher safety



Operating information

Working pressure: Max 7 bar (max 6 bar in Ex area)
 Working temperature: -30° to +100° C (-20° to +40° C in Ex area)
 Fluid: Compressed air with ISO 8573-1 Quality class 3.4.3
 (no-lube operation) and 3..5 (lube operation)
 ATEX approval: CE Ex II 2 GD c IIC T6 (80°C)X
 CE Ex II 2 GD c IIC T5 (95°C)X

For ATEX specific products contact Sales Office

Note: All technical data is based on a working pressure of 6 bar in the inlet port

Reversible air motors

Keyed shaft, P1V-S002A series, 20 watt - (M5)		Free speed	Speed at max output	Torque at max output	Min start torque	Air consumption at max output	Conn.	Min pipe ID	Order code
Max output kW		rpm	r/min	Nm	Nm	l/s			
0,02		1300	650	0,29	0,44	1,7	M5	3	P1V-S002A0130
0,02		950	475	0,40	0,60	1,7	M5	3	P1V-S002A0095

Keyed shaft, P1V-S008A series, 80 watt - (M8 x 0,75, 3 push in nippels for plastic pipes Ø6/4 mm supplied)

0,08	24000	12000	0,06	0,09	3,5	M8 x 0,75*	4	P1V-S008A0Q00
0,08	7000	3500	0,22	0,33	3,5	M8 x 0,75*	4	P1V-S008A0700
0,08	1900	950	0,80	1,20	3,5	M8 x 0,75*	4	P1V-S008A0190
0,08	1300	650	1,20	1,80	3,5	M8 x 0,75*	4	P1V-S008A0130

Keyed shaft, P1V-S012A series, 120 watt - (G1/8)

CE Ex II2GD cIIC T6 (80°C) X

0,12	22000	11000	0,10	0,15	5,0	G1/8	6	P1V-S012A0N00
0,12	5500	2750	0,42	0,63	5,0	G1/8	6	P1V-S012A0550
0,12	3600	1800	0,64	0,95	5,0	G1/8	6	P1V-S012A0360
0,12	1400	700	1,64	2,40	5,0	G1/8	6	P1V-S012A0140
0,12	900	450	2,54	3,80	5,0	G1/8	6	P1V-S012A0090
0,12	600	300	3,82	5,00*	5,0	G1/8	6	P1V-S012A0060
0,12	100	50	5,00*	5,00*	5,0	G1/8	6	P1V-S012A0010

Threaded shaft, P1V-S012D series, 120 watt - (G1/8)

CE Ex II2GD cIIC T6 (80°C) X

0,12	22000	11000	0,10	0,15	5,0	G1/8	6	P1V-S012D0N00
0,12	5500	2750	0,42	0,63	5,0	G1/8	6	P1V-S012D0550
0,12	3600	1800	0,64	0,95	5,0	G1/8	6	P1V-S012D0360
0,12	1400	700	1,64	2,40	5,0	G1/8	6	P1V-S012D0140
0,12	900	450	2,54	3,80	5,0	G1/8	6	P1V-S012D0090
0,12	600	300	3,82	5,00*	5,0	G1/8	6	P1V-S012D0060
0,12	100	50	5,00*	5,00*	5,0	G1/8	6	P1V-S012D0010

Keyed shaft, P1V-S020A series, 200 watt - (G1/8)

CE Ex II2GD cIIC T6 (80°C) X

0,20	14500	7250	0,26	0,40	6,3	G1/8	10	P1V-S020A0E50
0,20	4600	2300	0,80	1,20	6,3	G1/8	10	P1V-S020A0460
0,20	2400	1200	1,60	2,40	6,3	G1/8	10	P1V-S020A0240
0,20	1400	700	2,70	4,10	6,3	G1/8	10	P1V-S020A0140
0,20	700	350	5,40	8,20	6,3	G1/8	10	P1V-S020A0070
0,20	350	160	12,00	18,00	6,3	G1/8	10	P1V-S020A0035
0,10	180	90	10,50	15,00	6,3	G1/8	10	P1V-S020A0018
0,20	110	55	33,00	49,50	6,3	G1/8	10	P1V-S020A0011
0,20	60	30	72,00	108,00*	6,3	G1/8	10	P1V-S020A0006
0,18	50	25	20,00*	20,00*	6,3	G1/8	10	P1V-S020A0005
0,18	20	-	20,00*	20,00*	6,3	G1/8	10	P1V-S020A0002
0,18	10	-	20,00*	20,00*	6,3	G1/8	10	P1V-S020A0001
0,20	5	-	20,00*	20,00*	6,3	G1/8	10	P1V-S020A00005

Indicates stocked product.

* Max allowed torque

Reversible air motors

Threaded shaft, P1V-S020D series, 200 watt - (G1/8)




Max output kW	Free speed rpm	Speed at max output r/min	Torque at max output Nm	Min start torque Nm	Air consumption at max output l/s	Conn.	Min pipe ID	Order code
0,20	14500	7250	0,26	0,40	6,3	G1/8	10	P1V-S020D0E50
0,20	4600	2300	0,80	1,20	6,3	G1/8	10	P1V-S020D0460
0,20	2400	1200	1,60	2,40	6,3	G1/8	10	P1V-S020D0240
0,20	1400	700	2,70	4,10	6,3	G1/8	10	P1V-S020D0140
0,20	700	350	5,40	8,20	6,3	G1/8	10	P1V-S020D0070
0,20	350	160	12,00	18,00	6,3	G1/8	10	P1V-S020D0035
0,10	180	90	10,50	15,00	4,5	G1/8	10	P1V-S020D0018
0,20	50	25	20,00*	20,00*	6,3	G1/8	10	P1V-S020D0005

Keyed shaft, P1V-S030A series, 300 watt - (G1/4)




0,30	14500	7250	0,40	0,60	8,0	G1/4	10	P1V-S030A0E50
0,30	4600	2300	1,20	1,90	8,0	G1/4	10	P1V-S030A0460
0,30	2400	1200	2,40	3,60	8,0	G1/4	10	P1V-S030A0240
0,30	1400	700	4,10	6,10	8,0	G1/4	10	P1V-S030A0140
0,30	600	300	9,60	14,30	8,0	G1/4	10	P1V-S030A0060
0,30	280	140	20,50	26,00	8,0	G1/4	10	P1V-S030A0028
0,30	230	115	24,00	36,00	8,0	G1/4	10	P1V-S030A0023
0,13	180	90	13,80	21,00	4,7	G1/8	10	P1V-S030A0018
0,30	100	50	57,00	85,50	8,0	G1/4	10	P1V-S030A0010
0,30	50	25	36,00*	36,00*	8,0	G1/4	10	P1V-S030A0005

Threaded shaft, P1V-S030D series, 300 watt - (G1/4)




0,30	14500	7250	0,40	0,60	8,0	G1/4	10	P1V-S030D0E50
0,30	4600	2300	1,20	1,90	8,0	G1/4	10	P1V-S030D0460
0,30	2400	1200	2,40	3,60	8,0	G1/4	10	P1V-S030D0240
0,30	1400	700	4,10	6,10	8,0	G1/4	10	P1V-S030D0140
0,30	600	300	9,60	14,30	8,0	G1/4	10	P1V-S030D0060
0,30	280	140	20,50	26,00	8,0	G1/4	10	P1V-S030D0028
0,13	180	90	13,80	21,00	4,7	G1/8	10	P1V-S030D0018
0,30	50	25	36,00*	36,00*	8,0	G1/4	10	P1V-S030D0005

Keyed shaft, P1V-S060A series, 600 watt - (G3/8)




0,60	14000	7000	0,82	1,23	14,5	G3/8	12	P1V-S060A0E00
0,60	4000	2000	2,90	4,30	14,5	G3/8	12	P1V-S060A0400
0,60	2700	1350	4,20	6,40	14,5	G3/8	12	P1V-S060A0270
0,60	1700	850	6,70	10,10	14,5	G3/8	12	P1V-S060A0170
0,60	720	360	15,90	24,00	14,5	G3/8	12	P1V-S060A0072
0,60	480	240	23,90	36,00	14,5	G3/8	12	P1V-S060A0048
0,60	300	150	38,20	57,00	14,5	G3/8	12	P1V-S060A0030
0,30	100	50	60,00*	60,00*	14,5	G3/8	12	P1V-S060A0010

Keyed shaft, P1V-S120A series, 1200 watt - (G3/4)




1,20	8000	4000	2,90	4,30	27,0	G3/4	19	P1V-S120A0800
1,20	2700	1350	8,50	12,70	27,0	G3/4	19	P1V-S120A0270
1,20	1100	550	21,00	31,00	27,0	G3/4	19	P1V-S120A0110
1,20	780	390	29,40	44,00	27,0	G3/4	19	P1V-S120A0078
1,20	320	160	71,60	107,00	27,0	G3/4	19	P1V-S120A0032
1,20	200	100	66,90	110,00*	19,0	G3/4	19	P1V-S120A0012

* Max allowed torque

 Indicates stocked product.

Brake motors

The integrated brake is a spring-loaded disk brake, which is released at a minimum air pressure of 5 bar. The brake is applied in the absence of pressure.

The technology and the size of air motors with integrated running and stationary brake make them ideal for applications requiring repeated precise positioning.

The motor can also be kept stationary in a specific position, and the stopping time for a rotating weight can be shortened significantly. Another typical application for brake motors is when the output shaft needs to be held in one position when the motor stops delivering torque.

The brake can handle more than 1500 braking operations per hour at maximum braking torque.

Note!

Brake motors must only ever be supplied with unlubricated air, otherwise there is a risk of oil from the supply air getting into the brake unit, resulting in poor brake performance or no braking effect.

Please check the allowed maximum torque applied on the motor from the load in the technical catalogue

Brake motors with keyed shaft, P1V-S020AD series, 200 watt - (G1/8)

Max output kW	Free speed rpm	Speed at max output r/min	Torque at max output Nm	Min start torque Nm	Air consumption at max output l/s	Conn.	Min pipe ID	Order code
0,20	14500	7250	0,26	0,40	6,3	G1/8	10	P1V-S020ADE50
0,20	4600	2300	0,80	1,20	6,3	G1/8	10	P1V-S020AD460
0,20	2400	1200	1,60	2,40	6,3	G1/8	10	P1V-S020AD240
0,20	1400	700	2,70	4,10	6,3	G1/8	10	P1V-S020AD140
0,20	700	350	5,40	8,20	6,3	G1/8	10	P1V-S020AD070
0,20	350	160	12,00	18,00	6,3	G1/8	10	P1V-S020AD035
0,10	180	90	10,50	15,00	4,5	G1/8	10	P1V-S020AD018
0,20	110	55	33,00	49,50	6,3	G1/8	10	P1V-S020AD011
0,20	60	30	72,00	108,00*	6,3	G1/8	10	P1V-S020AD006
0,18	50	25	20,00*	20,00*	6,3	G1/8	10	P1V-S020AD005
0,18	20	-	20,00*	20,00*	6,3	G1/8	10	P1V-S020AD002
0,18	10	-	20,00*	20,00*	6,3	G1/8	10	P1V-S020AD005
0,18	5	-	20,00*	20,00*	6,3	G1/8	10	P1V-S020AD0005

Brake motors with keyed shaft, P1V-S030AD series, 300 watt - (G1/4)

0,30	14500	7250	0,40	0,60	8,0	G1/4	10	P1V-S030ADE50
0,30	4600	2300	1,20	1,90	8,0	G1/4	10	P1V-S030AD460
0,30	2400	1200	2,40	3,60	8,0	G1/4	10	P1V-S030AD240
0,30	1400	700	4,10	6,10	8,0	G1/4	10	P1V-S030AD140
0,30	600	300	9,60	14,30	8,0	G1/4	10	P1V-S030AD060
0,30	280	140	20,50	26,00	8,0	G1/4	10	P1V-S030AD028
0,30	230	115	24,00	36,00	8,0	G1/4	10	P1V-S030AD023
0,30	100	50	57,00	85,50	8,0	G1/4	10	P1V-S030AD010
0,30	50	25	36,00*	36,00*	8,0	G1/4	10	P1V-S030AD005

* Max allowed torque

P1V-S Accessories

Flange

	For air motor	For drilling motor	Order code
	P1V-S002		P1V-S4002B
	P1V-S008	P1V-S008	P1V-S4008B
	P1V-S012		P1V-S4012B
	P1V-S020	P1V-S025	P1V-S4020B
	P1V-S030	P1V-S040	P1V-S4030B
	P1V-S060		P1V-S4060B
	P1V-S120		P1V-S4120B

Foot

	For air motor	For drilling motor	Order code
	P1V-S008	P1V-S008	P1V-S4008F
	P1V-S012		P1V-S4012F
	P1V-S020	P1V-S025	P1V-S4020F
	P1V-S030	P1V-S040	P1V-S4030F
	P1V-S020A0011		P1V-S4020C
	P1V-S020A0006		P1V-S4020C
	P1V-S020A0023		P1V-S4020C
	P1V-S020A0010		P1V-S4020C
	P1V-S060		P1V-S4060F
	P1V-S120		P1V-S4120F

Design Variants

A large number of drilling motors, milling motors and grinding motors have been developed using the P1V-S as the base motor in order to make it easier to install air motors in machining applications.

NB: These motors must be supplied with lubricated air



Operating information

Working pressure:	Max 7 bar
Working temperature:	-30°C to +100°C
Medium:	40 µm filtered oil mist (unlubricated for grinding motor P1V-S009)

For technical information see CD

P1V-A is a range of reversible air motors intended for heavy and demanding applications. The motor housings are made from painted cast iron, and the components sealed to permit operation in damp and dirty environments.

The simple construction of the motors makes them very reliable, with long service life and they are easy to service.



- Designed for arduous applications.
- Wide range of optional gears
- Wide speed and torque range
1.6kW, 2.6kW, 3.6kW

Operating information

Working Pressure: Max 7 bar
Working Temperature: -30 °C to +100 °C
Medium: 40 µm with or without oil mist

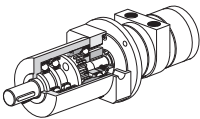
Note: All technical detail based on 6 bar inlet

Basic motor with keyed shaft

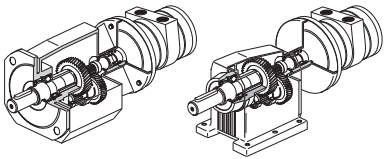
Max power	Free speed*	Speed at max power	Torque at max power	Min start torque	Air consumption at max power	Conct.	Min pipe ID Inlet/Outlet	Order code
kW	r/min	r/min	Nm	Nm	l/s		mm	
Series P1V-A160								
1,6	9000	4500	3,3	5	32	G1/2	19/19	P1V-A160A0900
Series P1V-A260								
2,6	7000	3500	7,1	11	60	G3/4	19/25	P1V-A260A0700
Series P1V-A360								
3,6	6000	3000	11,5	17	80	G1	22/32	P1V-A360A0600

* Idling speed

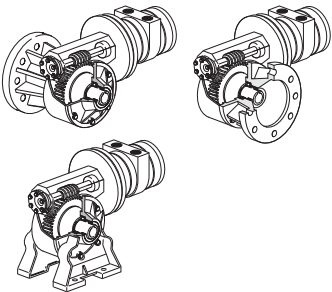
Planetary gear



Helical gear



Worm gear



Planetary gear: torque 15 - 160 Nm, speed 900 - 90 r/min at max output

Helical gear: torque 23 - 1800 Nm, speed 625 - 18 r/min at max output

Worm gear: torque 38 - 670 Nm, speed 350 - 37 r/min at max output

Clamp cylinders are single acting pneumatic cylinders with built-in oleo-pneumatic intensifiers. They can be used to solve most clamping, tightening etc problems.

- Single acting cylinders with built-in hydro-pneumatic intensifier
- Compact size with large clamping forces up to 2700 daN (depending on air pressure)
- Operated using a compressed air supply, no special installation required
- Easy adjustment through a fully threaded body
- Simple and rapid installation



Operating information

Working pressure:	Max 9bar
except VBH603 and VBH606 :	Max 7bar
Permissible fluid:	Filtered (40μ) with or without lubrication
Standard working temperature:	+5°C to +50°C

Hydraulic clamps

Order code	Max.stroke (mm)	Ø external (mm)	Force at 6bar (daN)
VB363C	3	36	240
VB366C	6	36	240
VB369C	9	36	240
VB483C	3	48	530
VB486C	6	48	530
VB489C	9	48	530
VB4812C	12	48	530
VBH483C	3	48	1060
VB606C	6	60	1140
VB609C	9	60	1140
VB6012C	12	60	1140
VBH603C	3	60	1800
VBH606C	6	60	1800

Maintenance

Seal kit for	VB Ø36	VB Ø48	VBH Ø48	VB Ø60	VBH Ø60
Order code	JJVB36	JJVB48	JJVBH48	JJVB60	JJVBH60

Oil container for all types of hydraulic clamp cylinders (250ml capacity) : Order code BH680VB

Hydraulic clamp mountings

Mounting for VB	Mounting block	Rounded end	V groove end
Ø36	FVA36-1	BVA36-16	BVA36-17
Ø48	FVA48-1	BVA48-16	BVA48-17
Ø60	FVA60-1	BVA60-16	BVA60-17



Mounting block



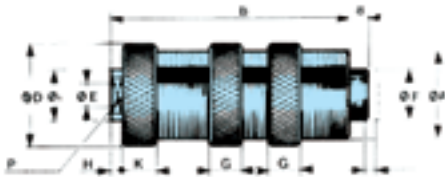
Rounded clamp piston end



V groove clamp piston end

 Indicates stocked product.

Dimensions (mm)



Model No	ØA	B	ØD	ØE	ØF	G	H	K	ØL	P
VB363C	M36 x 1,5	98,0	42	G1/8	22	12	4	13	22	17
VB366C	M36 x 1,5	127,5	42	G1/8	22	12	4	13	22	17
VB369C	M36 x 1,5	185,0	42	G1/8	22	12	4	13	22	17
VB483C	M48 x 1,5	111,0	56	G1/8	32	12	4	13	22	17
VBH483C	M48 x 1,5	148,0	56	G1/8	32	12	4	13	22	17
VB486C	M48 x 1,5	148,0	56	G1/8	32	12	4	13	22	17
VB489C	M48 x 1,5	188,0	56	G1/8	32	12	4	13	22	17
VB4812C	M48 x 1,5	234,0	56	G1/8	32	12	4	13	22	17
VBH603C	M60 x 2	175,0	70	G1/4	40	14	5	17	25	22
VB606C	M60 x 2	175,0	70	G1/4	40	14	5	17	25	22
VBH606C	M60 x 2	290,0	70	G1/4	40	14	5	17	25	22
VB609C	M60 x 2	249,0	70	G1/4	40	14	5	17	25	22
VB6012C	M60 x 2	314,0	70	G1/4	40	14	5	17	25	22

Air bellows are the ideal choice for applications requiring short stroke, high thrust single acting actuators.

Manufactured from fabric reinforced synthetic rubber in one, two or three convolutions according to stroke and model. They incorporate no reciprocating meatl parts and so provide virtually frictionless thrust compared with conventional pneumatic cylinders.



- 10 sizes, diameters 70-660 mm
- Strokes from 45 to 375 mm
- Single, double or triple convolutions
- High thrust and frictionless movement
- Maintenance free

Operating information

Working pressure: Max 8 bar
 Working temperature: -30°C to +70°C
 High temperature version
 Working temperature: -30°C to +115°C
 Operation: Dry air



It is recommended that external mechanical stops are used to limit the stroke. The units should not achieve maximum stroke or be allowed to 'bottom out'.
 Air Bellows may not be stacked, use singly only.

Air bellows are suitable for vibration applications i.e. device feeders at high frequency.

For technical information see CD

Single convolution

Symbol	Ø mm (inches)	Port size	Max force (N) at 1 bar (0 stroke)	Max stroke mm	Order code
	110 (4½ x 1)	G3/8	1150	45	9109400
	150 (6 x 1)	G1/2	1900	55	9109004A
	200 (8 x 1)	G1/2	3200	75	9109014
	250 (10 x 1)	G1/2	5000	100	9109024
	300 (12 x 1)	G1/2	6500	100	9109044
	370 (14½ x 1)	G1/2	9600	115	9109064

Double convolution

Symbol	Ø mm (inches)	Port size	Max force (N) at 1 bar (0 stroke)	Max stroke mm	Order code
	70 (2¾ x 2)	G1/4	400	50	9109009
	110 (4½ x 2)	G3/8	900	80	9109401
	150 (6 x 2)	G1/2	1800	112	9109001A
	200 (8 x 2)	G1/2	3000	180	9109011
	250 (10 x 2)	G1/2	4800	200	9109021
	300 (12 x 2)	G1/2	6800	195	9109041
	370 (14½ x 2)	G1/2	10000	225	9109061
	410 (16 x 2)	G1/2	11400	250	9109171
	550 (21½ x 2)	G3/4	24000	300	9109150
	660 (26 x 2)	G3/4	30800	310	9109156

Triple convolution

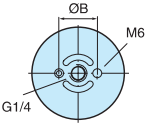
Symbol	Ø mm (inches)	Port size	Max force (N) at 1 bar (0 stroke)	Max stroke mm	Order code
	70 (2¾ x 3)	G1/4	370	65	9109010
	110 (4½ x 3)	G3/8	900	100	9109402
	150 (6 x 3)	G1/2	1800	173	9109007A
	200 (8 x 3)	G1/2	3000	225	9109017
	250 (10 x 3)	G1/2	4800	300	9109031
	300 (12 x 3)	G1/2	6800	330	9109051
	370 (14½ x 3)	G1/2	10200	350	9109069
	410 (16 x 3)	G1/2	10500	375	9109177

Indicates stocked product.

Dimensions (mm)

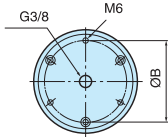
Ø70 mm (2¾")

Aluminium end plate version



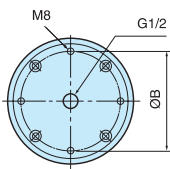
Ø110 mm (4½")

Aluminium end plate version



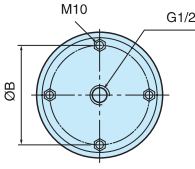
Ø150 mm (6")

Aluminium end plate version



Ø200-410 mm (8-16")

Aluminium end plate version

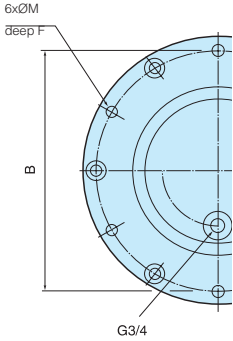


Ø550 mm (21½")

Steel end plate version

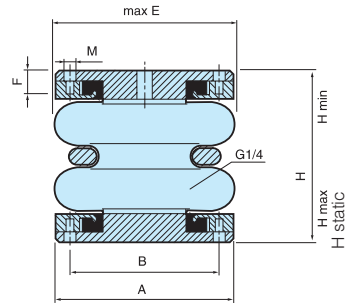
Ø660 mm (26")

Steel end plate version



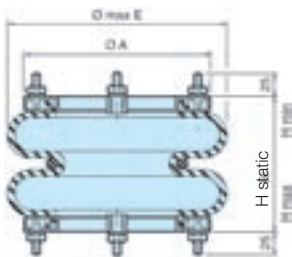
Ø	Number of convolutions	H min	H static	H max	Stroke max	ØE max	ØA	ØB	ØM	F
70	2	65	90	115	50	80	78	36	M6	9
70	3	80	110	145	65	80	78	36	M6	9
110	1	45	65	90	45	125	110	93	M6	13
110	2	65	100	145	80	125	110	93	M6	13
110	3	100	145	200	100	125	110	93	M6	13
150	1	50	80	105	55	175	155	127	M8	16
150	2	78	130	190	172	175	155	127	M8	16
150	3	102	190	275	173	175	155	127	M8	16
200	1	50	90	125	75	230	184	155.5	M10	
200	2	70	160	250	180	230	184	155.5	M10	
200	3	100	205	325	225	230	184	155.5	M10	
250	1	50	100	150	100	280	210	181	M10	
250	2	70	170	270	250	280	210	181	M10	
250	3	100	250	400	300	280	210	181	M10	
300	1	50	100	150	100	330	260	232	M10	
300	2	75	170	270	195	330	260	232	M10	
300	3	100	250	430	330	330	260	232	M10	
370	1	50	110	165	115	395	310	282.5	M10	
370	2	70	180	295	225	395	310	282.5	M10	
370	3	100	280	450	350	395	310	282.5	M10	
410	2	75	200	325	250	440	310	282.5	M10	
410	3	125	300	500	375	440	310	282.5	M10	
550	2	90	200	390	300	580	498.5	470	M10	19
660	2	90	200	400	310	700	498.5	470	M10	19

Ø70-150 mm (2¾-6")



Ø200-410 mm (8-16")

Steel end plate version

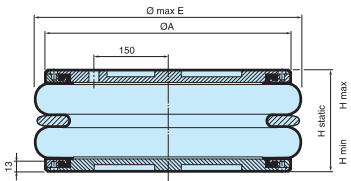


Ø550 mm (21½")

Aluminium end plate version

Ø660 mm (26")

Steel end plate version





These modern lightweight grippers offer high performance with a choice of options to suit most applications.

- Compact design
- Double acting, square jaws
- Automatic grip retention by mechanical system
- Total jaw opening (180°)
- High reliability

Operating information

Working pressure	3-8 bar
Working temperature (with or without sensors)	-20°C to 70°C
Operation	Dry air, with or without lubrication
For technical information see CD	

Design Variants

Parallel double acting, square jaw carriers

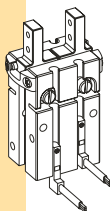
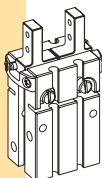
Gripper is opened and closed by pneumatic pressure.
No grip retention at closing.
4 sizes available.

Sensors

Check on closing and opening of gripper by means of magneto-inductive sensors.

Spring function

Self-locking in closed or opened position by internal spring.
In case of air failure, the retention force is equal to the clamping force divided by 4.



Angular double acting, square jaw carriers

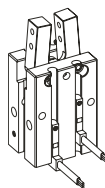
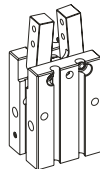
Gripper is opened and closed by pneumatic pressure.
No self-locking in closed position.
4 sizes available.

Sensors

Check on closing and opening of gripper by means of magneto-inductive sensors.

Spring function

Self-locking in closed or opened position by internal spring.
In case of air failure, the retention force is equal to the clamping force divided by 4.

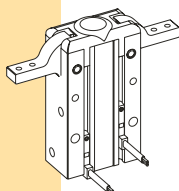
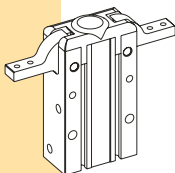


Radial double acting, square jaw carriers

Gripper is opened and closed by pneumatic pressure.
Automatic grip retention by mechanical system.
4 sizes available.

Detection

Check on opening and closing of gripper by means of magneto-inductive sensors.



Shock absorbers are hydraulic units which allow to bring a moving load to rest, quickly and safely, without rebound nor backward movement.

They provide a constant linear deceleration with the lowest possible reaction force in the shortest possible stopping time.

- Compact and heavy duty versions
- High energy absorption
- Low return force
- Long service life
- Increases productivity
- Reduces maintenance



Operation information

Type	Self-compensating
Working temperature	
MC9 to MC 600	0 to 65°
SC925	-12 to 90°
MC33 to MC64	-12 to 70°

Sizing software available on separate CD : PDE2524TCUK-CD

For technical information, see CD

MC 9 to MC 600 series

Stroke (mm)	Ø	Order code
5	M6 x 0,5	MC9M-1-B
5	M6 x 0,5	MC9M-2-B
5	M8 x 1	MC10ML-B
5	M8 x 1	MC10MH-B
6,6	M10 x 1	MC25ML
6,6	M10 x 1	MC25M
6,6	M10 x 1	MC25MH
10	M12 x 1	MC75M-1
10	M12 x 1	MC75M-2
10	M12 x 1	MC75M-3
12,5	M14 x 1,5	MC150M
12,5	M14 x 1,5	MC150MH
12,5	M14 x 1,5	MC150MH2
12,5	M20 x 1,5	MC225M
12,5	M20 x 1,5	MC225MH
12,5	M20 x 1,5	MC225MH2
25,4	M25 x 1,5	MC600M
25,4	M25 x 1,5	MC600MH
25,4	M25 x 1,5	MC600MH2

SC 925 series

Stroke (mm)	Ø	Order code
40	M25 x 1,5	SC925M-1
40	M25 x 1,5	SC925M-2
40	M25 x 1,5	SC925M-3

Accessories

Stop collar

Series	Order code
MC 9 M	AH6
MC 10 M	AH8
MC 25 M	AH10
MC 75 M	AH12
MC 150 M	AH14
MC 225 M	AH20
MC 600M	AH25
SC 925 M	

Clamp

Series	Order code
MC 9 M	MB6
MC 10 M	MB8
MC 25 M	MB10
MC 75 M	MB12
MC 150 M	MB14
MC 225 M	MB20
MC 600M	MB25
SC 925 M	

Side load adaptor

Series	Order code
MC 9 M	BV6
MC 10 M	BV8
MC 25 M	BV10
MC 75 M	BV12
MC 150 M	BV14
MC 225 M	BV20
MC 600M	BV25
SC 925 M	

 Indicates stocked product.

Accessories

Rectangular flange

Series	Order code
MC 9 M	RF6
MC 10 M	RF8
MC 25 M	RF10
MC 75 M	RF12
MC 150 M	RF14
MC 225 M	RF20
MC 600M SC 925 M	RF25

Lock nut

Series	Order code
MC 9 M	KM6
MC 10 M	KM8
MC 25 M	KM10
MC 75 M	KM12
MC 150 M	KM14
MC 225 M	KM20
MC 600M SC 925 M	KM25

MC 33 to MC 64

Stroke (mm)	Ø	Order code
25	M33 x 1,5	MC 3325 M-1
50	M33 x 1,5	MC 3350 M-1
25	M45 x 1,5	MC 4525 M-1
50	M45 x 1,5	MC 4550 M-1
75	M45 x 1,5	MC 4575 M-1
50	M64 x 2	MC 6450 M-1
100	M64 x 2	MC 64100 M-1
150	M64 x 2	MC 64150 M-1

Accessories

Locking ring

Series	Order code
MC 33	NM33
MC 45	NM45
MC 64	NM64

Nylon button

Series	Order code
MC 33	PP33
MC 45	PP45
MC 64	PP64

Square flange

Series	Order code
MC 33	QF33
MC 45	QF45
MC 64	QF64

Side foot mounting kit

Series	Order code
MC3325M & MC3350M	S33
MC4525M, MC4550M & MC4575M	S45
MC6450M, MC64100M & MC64150M	S64

Clevis mounting kit

Series	Order code
MC 33	C33
MC 45	C45
MC 64	C64

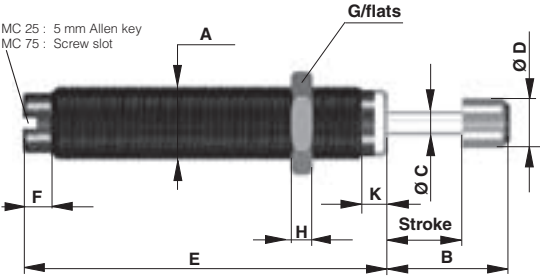
Female fitting

Series	Order code
MC 33	P1C-4KMC
MC 45	P1C-4MMC
MC 64	P1C-4PMC

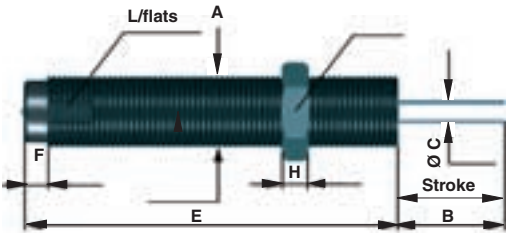
 Indicates stocked product.

Dimensions (mm)

Serie MC 9 M to MC 75 M

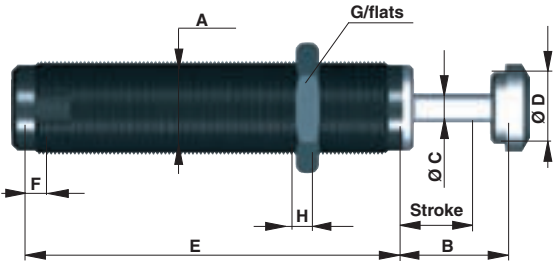


Serie MC 150 M to MC 600 M



Part No	Stroke (mm)	A	B	C	D	E	F	G	H	K	L
MC 9 M-1-B	5	M6 x 0,5	10	2	4,8	26	2,5	8	2,5	1	-
MC 9 M-2-B	5	M6 x 0,5	10	2	4,8	26	2,5	8	2,5	1	-
MC 10 ML-B	5	M8 x 1	10	2	6,4	28,5	5	11	3	2	-
MC 10 MH-B	5	M8 x 1	10	2	6,4	28,5	5	11	3	2	-
MC 25 ML	6,6	M10 x 1	14,6	3,2	7,6	43,4	5	13	3	5	-
MC 25 M	6,6	M10 x 1	14,6	3,2	7,6	43,4	5	13	3	5	-
MC 25 MH	6,6	M10 x 1	14,6	3,2	7,6	43,4	5	13	3	5	-
MC 75 M-1	10	M12 x 1	18	3,2	7,6	52	5	14	4	3	-
MC 75 M-2	10	M12 x 1	18	3,2	7,6	52	5	14	4	3	-
MC 75 M-3	10	M12 x 1	18	3,2	7,6	52	5	14	4	3	-
MC 150 M	12,5	M14 x 1,5	17,5	4,8	-	70	8,5	17	5	-	12
MC 150 MH	12,5	M14 x 1,5	17,5	4,8	-	70	8,5	17	5	-	12
MC 150 MH2	12,5	M14 x 1,5	17,5	4,8	-	70	8,5	17	5	-	12
MC 225 M	12,5	M20 x 1,5	17,5	6,3	-	80	8,5	24	6	-	18
MC 225 MH	12,5	M20 x 1,5	17,5	6,3	-	80	8,5	24	6	-	18
MC 225 MH2	12,5	M20 x 1,5	17,5	6,3	-	80	8,5	24	6	-	18
MC 600 M	25,4	M25 x 1,5	32	8	-	111	9	30	8	-	23
MC 600 MH	25,4	M25 x 1,5	32	8	-	111	9	30	8	-	23
MC 600 MH2	25,4	M25 x 1,5	32	8	-	111	9	30	8	-	23

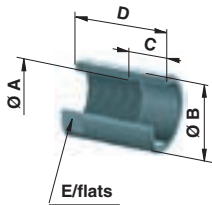
Serie SC 925



Part No	Stroke (mm)	A	B	C	D	E	F	G	H
SC 925 M-1	40	M25 x 1,5	51	6,3	23	138	7	30	8
SC 925 M-2	40	M25 x 1,5	51	6,3	23	138	7	30	8
SC 925 M-3	40	M25 x 1,5	51	6,3	23	138	7	30	8

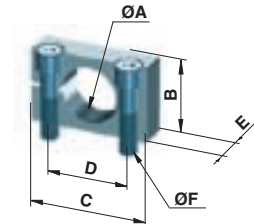
Dimensions (mm)

Stop collar



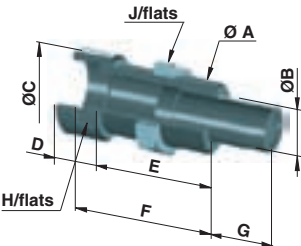
Part No	Used with serie	ØA	ØB	C	D	E
AH6	MC 9 M	M 6 x 0,5	8	6	12	-
AH8	MC 10 M	M 8 x 1	11	6	12	-
AH10	MC 25 M	M 10 x 1	14	10	20	-
AH12	MC 75 M	M 12 x 1	16	10	20	-
AH14	MC 150 M	M 14 x 1,5	18	12	20	15
AH20	MC 225 M	M 20 x 1,5	25	12	25	22
AH25	MC 600 M	M 25 x 1,5	32	16	32	27
	SC 925 M	M 25 x 1,5	32	16	32	27

Clamp



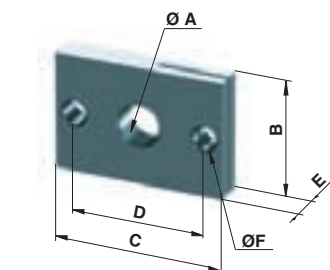
Part No	Used with serie	ØA	B	C	D	E	ØF
MB6	MC 9 M	M 6 x 0,5	10	20	12	8	M3
MB8	MC 10 M	M 8 x 1	12	25	16	10	M4
MB10	MC 25 M	M 10 x 1	14	25	16	10	M4
MB12	MC 75 M	M 12 x 1	16	32	20	12	M5
MB14	MC 150 M	M 14 x 1,5	20	32	20	12	M5
MB20	MC 225 M	M 20 x 1,5	25	40	28	20	M6
MB25	MC 600 M	M 25 x 1,5	32	46	34	25	M6
	SC 925 M	M 25 x 1,5	32	46	34	25	M6

Side load adaptor



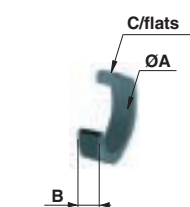
Part No	Used with serie	ØA	ØB	ØC	D	E	ØF	G	H	J
BV8	MC 10 M	M 8 x 1	4	11	10	10	12	5	9	11
BV10	MC 25 M	M 10 x 1	6	13	11	12	15	6,5	11	13
BV12	MC 75 M	M 12 x 1	7	15	12	18	22	10	14	14
BV14	MC 150 M	M 14 x 1,5	9	18	12	20	24	12,5	16	17
BV20	MC 225 M	M 20 x 1,5	12	24	14	20	24	12,5	22	24
BV25	MC 600 M	M 25 x 1,5	16	30	16	38	44	25	27	30
	SC 925 M	M 25 x 1,5	16	30	16	38	44	25	27	30

Rectangular flange



Part No	Used with serie	ØA	B	C	D	E	ØF
RF6	MC 9 M	M 6 x 0,5	10	20	14	5	3,4
RF8	MC 10 M	M 8 x 1	14	25	18	6	4,5
RF10	MC 25 M	M 10 x 1	14	28	20	6	4,5
RF12	MC 75 M	M 12 x 1	20	32	24	6	5,5
RF14	MC 150 M	M 14 x 1,5	20	34	26	6	5,5
RF20	MC 225 M	M 20 x 1,5	32	46	36	8	6,5
RF25	MC 600 M	M 25 x 1,5	32	52	42	8	6,5
	SC 925 M	M 25 x 1,5	32	52	42	8	6,5

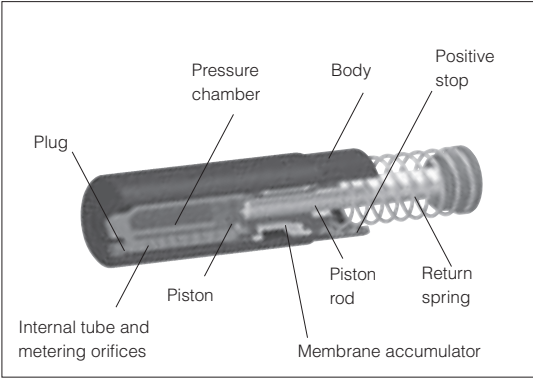
Lock nut



Part No	Used with serie	A	B	C
KM6	MC 9 M	M 6 x 0,5	2,5	8
KM8	MC 10 M	M 8 x 1	3	11
KM10	MC 25 M	M 10 x 1	3	13
KM12	MC 75 M	M 12 x 1	4	14
KM14	MC 150 M	M 14 x 1,5	5	17
KM20	MC 225 M	M 20 x 1,5	6	24
KM25	MC 600 M	M 25 x 1,5	8	30
	SC 925 M	M 25 x 1,5	8	30

Dimensions (mm)

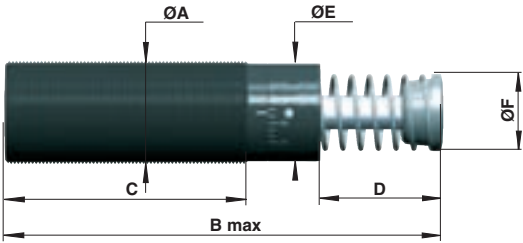
Serie MC 33 to MC 64



Serie	MC 3325 M	MC 3350 M	MC 4525 M	MC 4550 M	MC 4575 M	MC 6450 M	MC 64100 M	MC 64150 M
Thread (mm)	M33 x 1,5	M33 x 1,5	M45 x 1,5	M45 x 1,5	M45 x 1,5	M64 x 2	M64 x 2	M64 x 2
Type	Self-compensating							
Mechanical stop	Built-in end of stroke							
Impact velocity (m/s)	0,15 to 5							
Stroke (mm)	25	50	25	20	75	50	100	150
Max. capacity per cycle (Nm)	155	310	340	680	1020	1700	3400	5100
Temperature (°C)	- 12 to 70							

Dimensions (mm)

Serie MC 33 to MC 64

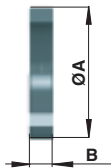


For the 3 ranges of effective weight

Part No	Stroke	A (mm)	B	C	D	E	F
MC 3325 M	25	M33 x 1,5	138	83	23	30	25
MC 3350 M	50	M33 x 1,5	189	108	48,5	30	25
MC 4525 M	25	M45 x 1,5	145	95	23	42	35
MC 4550 M	50	M45 x 1,5	195	120	48,5	42	35
MC 4575 M	75	M45 x 1,5	246	145	74	42	35
MC 6450 M	50	M64 x 2	225	140	48,5	60	48
MC 64100 M	100	M64 x 2	326	191	99,5	60	48
MC 64150 M	150	M64 x 2	450	241	150	60	48

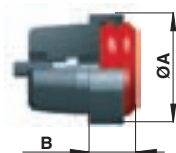
Dimensions (mm)

Locking Ring



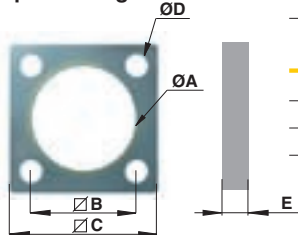
Part No	Used with serie	ØA	B
NM33	MC 3325 M & MC 3350 M	40	6
NM45	MC 4525 M & MC 4550 M & MC 4575 M	57	10
NM64	MC 6450 M & MC 64100 M & MC 64150 M	76	10

Nylon Button



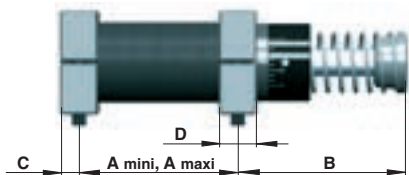
Part No	Used with serie	ØA	B
PP33	MC 3325 M & MC 3350 M	29	12
PP45	MC 4525 M & MC 4550 M & MC 4575 M	42	18
PP64	MC 6450 M & MC 64100 M & MC 64150 M	60	18

Square Flange

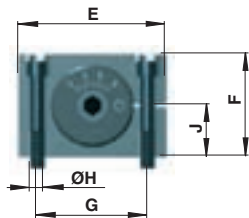


Part No	Used with serie	ØA	ØD	ØB	ØC	E
QF33	MC 3325 M & MC 3350 M	M33 x 1,5	6,6	32	44	12
QF45	MC 4525 M & MC 4550 M & MC 4575 M	M45 x 1,5	9	42	56	15
QF64	MC 6450 M & MC 64100 M & MC 64150 M	M64 x 2	11	58	80	20

Side foot Mounting Kit



S33 = 2 flanges + 4 screws M6 x40
S45 = 2 flanges + 4 screws M8 x50
S64 = 2 flanges + 4 screws M10 x80

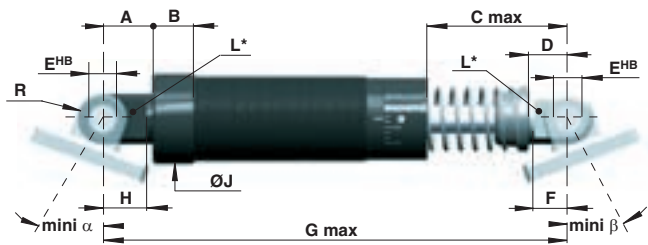


Tightening torque
S33 = 11 Nm **S45** = 27 Nm **S64** = 50 Nm

Removing torque
S33 > 90 Nm **S45** > 350 Nm **S64** > 350Nm

Part No	Used with serie	A mini	A maxi	B	C	D	E	F	G	ØH	J
S33	MC 3325 M	25	60	68	10	20	56	40	42	6,6	20
S33	MC 3350 M	32	86	93	10	20	56	40	42	6,6	20
S45	MC 4525 M	32	66	66	12,5	25	80	56	60	9	28
S45	MC 4550 M	40	92	91	12,5	25	80	56	60	9	28
S45	MC 4575 M	50	118	116	12,5	25	80	56	60	9	28
S64	MC 6450 M	50	112	100	12,5 ²	25	100	80	78	11	40
S64	MC 64100 M	64	162	152	12,5	25	100	80	78	11	40
S64	MC 64150 M	80	212	226	12,5	25	100	80	78	11	40

Dimensions (mm)

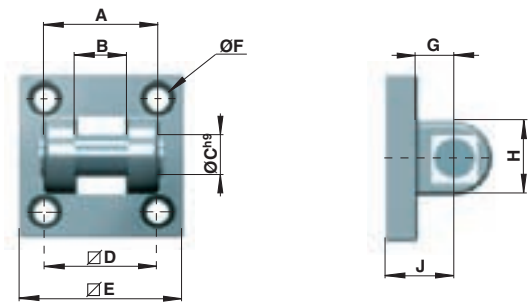


S33 =
S45 = 2 clevis shipped fitted onto shock absorber
S64 =

Part No	Used with serie	A	B	Cmax	D	EHB	F	G max	H	ØJ	L*	R	mini α	mini β
C33	MC 3325 M	14	14	39	14	10	13	168	13	38	13	10	20°	0°
C33	MC 3350 M	14	14	64	14	10	13	218	13	38	13	10	20°	0°
C45	MC 4525 M	28	20	43	18	16	17	200	20	53	20	14	15°	15°
C45	MC 4550 M	28	20	68	18	13	17	250	20	53	20	14	15°	15°
C45	MC 4575 M	28	20	93	18	13	17	300	20	53	20	14	15°	15°
C64	MC 6450 M	35	25	85	35	20	30	310	30	74	24	20	20°	10°
C64	MC 64100 M	35	25	136	35	20	30	410	30	74	24	20	20°	10°
C64	MC 64150 M	35	25	187	35	20	30	530	30	74	24	20	20°	10°

L* indicates the width of front and rear clevis

Female Fitting



Supplied with 4 mounting screws

Part No	Used with serie	A	B	ØC ^{h9}	ØD	ØE	ØF	G	H	J
P1C-4KMC	MC 3325 M , MC 3350 M	34	14	10	32	48	7	13	23	22
P1C-4MMC	MC 4525 M, MC 4550 M, MC 4575 M	45	21	16	46	65	9	15	29	27
P1C-4PMC	MC 6450 M, MC 64100 M, MC 64150 M	65	25	20	72	95	11	22	45	36

Vacuum Products



Vacuum Pads



Vacuum Ejectors



Vacuum Sensors

Accessories



Vacuum pads

- Flat & Bellow Pads
- Male & Female Connections
- Different Materials
- Range of Diameters



Flat Pads - PFG

	Ø (mm)	Order code
	1	PFG-1-NBR
	1,5	PFG-1.5-NBR
	2	PFG-2A-NBR
	3,5	PFG-3.5A-NBR
	5	PFG-5A-NBR
	6	PFG-6A-NBR
	8	PFG-8A-NBR
	10	PFG-10A-NBR
	15	PFG-15A-NBR
	20	PFG-20B-NBR
	25	PFG-25-NBR
	30	PFG-30-NBR
	35	PFG-35-NBR
	40	PFG-40-NBR
	50	PFG-50-NBR
	60	PFG-60-NBR
	80	PFG-80-NBR
	95	PFG-95-NBR
	120	PFG-120-NBR
	150	PFG-150-NBR
	200	PFG-200-NBR

Flat Pads - Male Connection - PFTM

	Ø (mm)	Thread	Order code
	2	M5	PFTM-2A-NBR-M5
	3,5	M5	PFTM-3.5A-NBR-M5
	5	M5	PFTM-5A-NBR-M5
	5	G1/8	PFTM-5A-NBR-G1
	6	M5	PFTM-6A-NBR-M5
	6	G1/8	PFTM-6A-NBR-G1
	8	M5	PFTM-8A-NBR-M5
	8	G1/8	PFTM-8A-NBR-G1
	10	M5	PFTM-10A-NBR-M5
	10	G1/8	PFTM-10A-NBR-G1
	15	M5	PFTM-15A-NBR-M5
	15	G1/8	PFTM-15A-NBR-G1
	20	G1/8	PFTM-20B-NBR-G1
	20	G1/4	PFTM-20B-NBR-G2
	25	G1/8	PFTM-25-NBR-G1
	25	G1/4	PFTM-25-NBR-G2
	30	G1/8	PFTM-30-NBR-G1
	30	G1/4	PFTM-30-NBR-G2
	35	G1/8	PFTM-35-NBR-G1
	35	G1/4	PFTM-35-NBR-G2
	40	G1/8	PFTM-40-NBR-G1
	40	G1/4	PFTM-40-NBR-G2
	50	G1/8	PFTM-50-NBR-G1
	50	G1/4	PFTM-50-NBR-G2
	60	G1/4	PFTM-60-NBR-G2
	80	G1/4	PFTM-80-NBR-G2
	95	G1/4	PFTM-95-NBR-G2

Flat Pads - Female Connection - PFTF

	Ø (mm)	Thread	Order code
	5	G1/8	PFTF-5A-NBR-G1
	6	G1/8	PFTF-6A-NBR-G1
	8	G1/8	PFTF-8A-NBR-G1
	10	G1/8	PFTF-10A-NBR-G1
	15	G1/8	PFTF-15A-NBR-G1
	20	G1/8	PFTF-20B-NBR-G1
	20	G1/4	PFTF-20B-NBR-G2
	25	G1/8	PFTF-25-NBR-G1
	25	G1/4	PFTF-25-NBR-G2
	30	G1/8	PFTF-30-NBR-G1
	30	G1/4	PFTF-30-NBR-G2
	35	G1/8	PFTF-35-NBR-G1
	35	G1/4	PFTF-35-NBR-G2
	40	G1/8	PFTF-40-NBR-G1
	40	G1/4	PFTF-40-NBR-G2
	50	G1/8	PFTF-50-NBR-G1
	50	G1/4	PFTF-50-NBR-G2
	60	G1/4	PFTF-60-NBR-G2
	80	G1/4	PFTF-80-NBR-G2
	95	G1/4	PFTF-95-NBR-G2
	120	G1/2	PFTF-120-NBR-G4
	150	G1/2	PFTF-150-NBR-G4
	200	G1/2	PFTF-200-NBR-G4

Flat Pads - Reinforced Female Connection - CFS

	Ø (mm)	Thread	Order code
	20	M5	P5V-CFS02035N
	30	M5	P5V-CFS03035N
	50	G1/8	P5V-CFS05011N
	75	G1/4	P5V-CFS07512N
	100	G3/8	P5V-CFS10013N
	150	G1/2	P5V-CFS15014N
	300	G1	P5V-CFS30018N

Indicates stocked product.

1.1/2 Bellow Pads - PBG

Ø (mm)	Order code
10	PBG-10A-NBR
15	PBG-15A-NBR
20	PBG-20B-NBR
30	PBG-30-NBR
40	PBG-40-NBR
50	PBG-50-NBR
75	PBG-75-NBR
110	PBG-110-NBR
150	PBG-150-NBR



1.1/2 Bellow Pads - Male Connection - PBTM

Ø (mm)	Thread	Order code
10	M5	PBTM-10A-NBR-M5
10	G1/8	PBTM-10A-NBR-G1
15	M5	PBTM-15A-NBR-M5
15	G1/8	PBTM-15A-NBR-G1
20	G1/8	PBTM-20B-NBR-G1
20	G1/4	PBTM-20B-NBR-G2
30	G1/8	PBTM-30-NBR-G1
30	G1/4	PBTM-30-NBR-G2
40	G1/8	PBTM-40-NBR-G1
40	G1/4	PBTM-40-NBR-G2
50	G1/8	PBTM-50-NBR-G1
50	G1/4	PBTM-50-NBR-G2
75	G1/4	PBTM-75-NBR-G2



1.1/2 Bellow Pads - Female Connection - PBTF

Ø (mm)	Thread	Order code
10	G1/8	PBTF-10A-NBR-G1
15	G1/8	PBTF-15A-NBR-G1
20	G1/8	PBTF-20B-NBR-G1
20	G1/4	PBTF-20B-NBR-G2
30	G1/8	PBTF-30-NBR-G1
30	G1/4	PBTF-30-NBR-G2
40	G1/8	PBTF-40-NBR-G1
40	G1/4	PBTF-40-NBR-G2
50	G1/8	PBTF-50-NBR-G1
50	G1/4	PBTF-50-NBR-G2
75	G1/4	PBTF-75-NBR-G2
110	G1/2	PBTF-110-NBR-G4
150	G1/2	PBTF-150-NBR-G4



2.1/2 Bellow Pads - PCG

Ø (mm)	Order code
5	PCG-5-NBR
7	PCG-7-NBR
9	PCG-10-NBR
14	PCG-15-NBR
18	PCG-18-NBR
20	PCG-20-NBR
32	PCG-30-NBR
42	PCG-40-NBR
62	PCG-60-NBR
88	PCG-90-NBR



2.1/2 Bellow Pads - Male Connection - PCTM

Ø (mm)	Thread	Order code
5	M5	PCTM-5-NBR-M5
5	G1/8	PCTM-5-NBR-G1
7	M5	PCTM-7-NBR-M5
7	G1/8	PCTM-7-NBR-G1
9	M5	PCTM-10-NBR-M5
9	G1/8	PCTM-10-NBR-G1
14	M5	PCTM-15-NBR-M5
14	G1/8	PCTM-15-NBR-G1
18	M5	PCTM-18-NBR-M5
18	G1/8	PCTM-18-NBR-G1
20	M5	PCTM-20-NBR-M5
20	G1/8	PCTM-20-NBR-G1
32	G1/8	PCTM-30-NBR-G1
32	G1/4	PCTM-30-NBR-G2
42	G1/8	PCTM-40-NBR-G1
42	G1/4	PCTM-40-NBR-G2
62	G1/8	PCTM-60-NBR-G1
62	G1/4	PCTM-60-NBR-G2
88	G1/4	PCTM-90-NBR-G2



2.1/2 Bellow Pads - Female Connection - PCTF

Ø (mm)	Thread	Order code
5	G1/8	PCTF-5-NBR-G1
7	G1/8	PCTF-7-NBR-G1
9	G1/8	PCTF-10-NBR-G1
14	G1/8	PCTF-15-NBR-G1
18	G1/8	PCTF-18-NBR-G1
20	G1/8	PCTF-20-NBR-G1
32	G1/8	PCTF-30-NBR-G1
32	G1/4	PCTF-30-NBR-G2
42	G1/8	PCTF-40-NBR-G1
42	G1/8	PCTF-40-NBR-G2
62	G1/8	PCTF-60-NBR-G1
62	G1/4	PCTF-60-NBR-G2
88	G1/4	PCTF-90-NBR-G2



Other materials than NBR (nitrile) available
SI (silicone)
U (urethane)

 Indicates stocked product.

Vacuum ejectors

- Basic Ejectors
- Basic Ejectors with electro-mechanical Switch
- In-line Ejectors
- Integrated Ejectors small & large



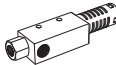
In-line Ejectors - MCA

	Vac %	Vac flow NI/min.	Order code
	86	5	MCA05HST6T6G1
	86	5	MCA05HST6T6T6
	60	9	MCA05LST6T6G1
	60	9	MCA05LST6T6T6
	86	11,5	MCA07HST6T6G1
	86	11,5	MCA07HST6T6T6
	50	19,5	MCA07LST6T6G1
	50	19,5	MCA07LST6T6T6
	90	25	MCA10HST6T6G2
	90	25	MCA10HST6T6T8
	60	37	MCA10LST6T6G2
	60	37	MCA10LST6T6T8
	92	35	MCA13HST6T6G2
	92	35	MCA13HST6T6T8

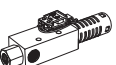
Ejector incl. blow-off - CV-VR

	Vac %	Vac flow NI/min.	Order code
	92	63	CV15HSVRG

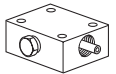
Basic Ejectors - CV

	Vac %	Vac flow NI/min.	Order code
	86	6	CV05HSG
	57	9	CV05LSG
	91	27	CV10HSG
	57	36	CV10LSG
	91	63	CV15HSG
	57	95	CV15LSG
	91	110	CV20HSG
	57	165	CV20LSG
	91	160	CV25HSG
	57	250	CV25LSG
	91	225	CV30AHSG
	57	350	CV30ALSG

Ejectors with electro-mech. switch - CV-CK

	Vac %	Vac flow NI/min.	Order code
	86	6	CV05HSCKG
	57	9	CV05LSCKG
	91	27	CV10HSCKG
	57	36	CV10LSCKG
	91	63	CV15HSCKG
	57	95	CV15LSCKG
	91	110	CV20HSCKG
	57	165	CV20LSCKG

Basic Ejectors - GAR

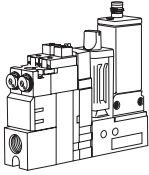
	Vac %	Vac flow NI/min.	Order code
	85	36	P5V-GAR0312
	85	53	P5V-GAR0614
	85	120	P5V-GAR1214
	85	290	P5V-GAR2414
	85	480	P5V-GAR4216
	85	600	P5V-GAR7214

Ejectors incl. AirSaver - GWV

	Vac %	Vac flow NI/min.	Order code
	90	14	P5V-GWV0214
	90	32	P5V-GWV0314
	90	50	P5V-GWV0414
	90	88	P5V-GWV0614

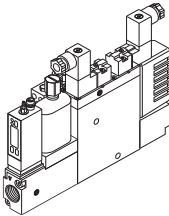
 Indicates stocked product.

Integrated Ejectors - (Small) - MC2



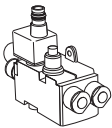
Vac %	Vac flow NI/min.	Order code	Order code Sensor
86	5,5	MC2S05HSZL24B5G	
86	5,5	MC2S05HS12L24B5G	MPS-V1E-PC
86	5,5	MC2S05HS02L24B5G	MVS-201-PCP
53	10,5	MC2S05LSZL24B5G	
53	10,5	MC2S05LS12L24B5G	MPS-V1E-PC
53	10,5	MC2S05LS02L24B5G	MVS-201-PCP
86	11	MC2S07HSZL24B5G	
86	11	MC2S07HS12L24B5G	MPS-V1E-PC
86	11	MC2S07HS02L24B5G	MVS-201-PCP
53	20,5	MC2S07LSZL24B5G	
53	20,5	MC2S07LS12L24B5G	MPS-V1E-PC
53	20,5	MC2S07LS02L24B5G	MVS-201-PCP
86	20	MC2S10HSZL24B5G	
86	20	MC2S10HS12L24B5G	MPS-V1E-PC
86	20	MC2S10HS02L24B5G	MVS-201-PCP

Integrated Ejectors - (Large) - CVK



Vac %	Vac flow NI/min.	Order code	Order code Sensor
90	60	CVK15HSZC24BDG	
90	60	CVK15HS22C24BDG	MPS-V2G-PC
90	60	CVK15HS02C24BDG	MVS-201-PCP
90	60	CVK15HS62C24BDG	MPS-V6C-PC
55	90	CVK15LSZC24BDG	
55	90	CVK15LS22C24BDG	MPS-V2G-PC
55	90	CVK15LS02C24BDG	MVS-201-PCP
55	90	CVK15LS62C24BDG	MPS-V6C-PC
90	100	CVK20HSZC24BDG	
90	100	CVK20HS22C24BDG	MPS-V2G-PC
90	100	CVK20HS02C24BDG	MVS-201-PCP
90	100	CVK20HS62C24BDG	MPS-V6C-PC
55	155	CVK20LSZC24BDG	
55	155	CVK20LS22C24BDG	MPS-V2G-PC
55	155	CVK20LS02C24BDG	MVS-201-PCP
55	155	CVK20LS62C24BDG	MPS-V6C-PC
90	150	CVK27HSZC24BDG	
90	150	CVK27HS22C24BDG	MPS-V2G-PC
90	150	CVK27HS02C24BDG	MVS-201-PCP
90	150	CVK27HS62C24BDG	MPS-V6C-PC

Moduflex Vacuum Generators - P2M



Order code for Size 1 vacuum generator (90% vac. - 25 NI/min)

Basic module	P2M1PXVA
I: 2 unions - V: 2 x 6mm straight - E: Silencer	P2M1PXVAJJAF6AMA
I: 2 unions - V: 6mm straight + plug - E: Silencer	P2M1PXVAJJAF6BMA
I: 2 x 6mm straight - V: 2 x 6mm straight - E: Silencer	P2M1PXVAF6AF6AMA
I: 2 x 6mm straight - V: 6mm straight + plug - E: Silencer	P2M1PXVAF6AF6BMA
I: 6mm straight + plug - V: 2 x 6mm straight - E: Silencer	P2M1PXVAF6BF6AMA
I: 6mm straight + plug - V: 6mm straight + plug - E: Silencer	P2M1PXVAF6BF6BMA

I = Input V = Vacuum E = Exhaust

 Indicates stocked product.

Vacuum sensors

- -1 to +10 bar
- Analog and/or Digital Outputs
- With display



Sensors

	Pressure range	Output	Connection		Order code
			electrical	pneumatic	
	-1 to 0 bar	1 analog / 7 amp.	conn.	G1/8	P5V-SVVA16K
	-1 to 0 bar	1 analog & 1 digit	M8	G1/8	MPS-V1G-PC
	0 to +10 bar	1 analog & 1 digit	M8	G1/8	MPS-P1G-PC
	-1 to 0 bar	1 analog & 1 digit	M8	Flange	MPS-V1E-PC
	0 to +10 bar	1 analog & 1 digit	M8	Flange	MPS-P1E-PC
	-1 to 0 bar	1 digit	M8	Flange	MPS-V1E-PC3
	-1 to 0 bar	2 digit	M8	G1/8	MPS-V2G-PC
	0 to +10 bar	2 digit	M8	G1/8	MPS-P2G-PC
	-1 to 0 bar	2 digit	M8	G1/8	MPS-V3G-PC
	0 to +10 bar	2 digit	M8	G1/8	MPS-P3G-PC
	-1 to 0 bar	2 digit	M8	Tube	MPS-V6T-PC
	-1 to 0 bar	2 digit	Cable	Tube	MPS-V6T-PG
	-1 to 0 bar	2 digit	M8	G1/8	MPS-V6G-PC
	-1 to 0 bar	2 digit	Cable	G1/8	MPS-V6G-PG
	-1 to 0 bar	1 analog	Cable	Tube	MPS-V6T-AGE
	0 to +10 bar	1 analog	Cable	Tube	MPS-P6T-AGE
			Cable		MPS-71E-PG
			Cable		MPS-74E-PG

Vacuum accessories

- High performance silencers and vacuum filters
- Electronic cables with M8 connector 4 pin



Electronic cables

	Order code
	CB-M8-4P-2M
	CB-M8-4P-5M
	CB-M8-4P-5M-90

Silencers

Thread	Order code
G 3/4	MS6-01
G 1/2	MSL02
G 1/4	MSM-01
G 1/8	MSS-01

Vacuum filters

	Order code
	VF-11
	VF-2
	VF-3
	VF-5
	VF-6
	VFL-44
	VFL-66

Vacuum cut-off valve

Thread	Order code
M5	P5V-BKS35
G1/8	P5V-BKS11
G1/4	P5V-BKS12

Thread	Order code
G3/8	P5V-BKS13
G1/2	P5V-BKS14

Indicates stocked product.

Valves and Logic Processing



Moduflex Valves



ISOMAX Valves



VIKING X TREME

Adex

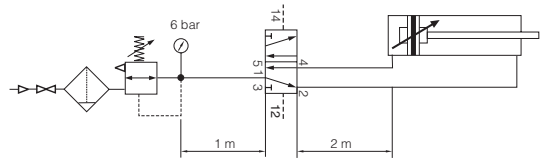


PXC / PXB / VA 13/15

Choice of components for air supply to cylinders

In the chart below can you find the suitable valves, tubes etc. for each cylinder size. If you have a tube length over 2 m, choose one tube size larger than in the chart. The table is based on a maximum cylinder speed of 0,5m/s.

Following data is valid:
Supply pressure: min 7,0 bar
Regulator pressure setting: 6,0 bar
Pipe length between air treatment unit and valve: max 1 m
Pipe length between valve and cylinder : max 2 m
The table is made for a cylinder speed max 0,5 m/s



Cylinder														
Cylinder diameter mm	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32	Ø40	Ø50	Ø63	Ø80	Ø100	Ø125	Ø160	Ø200
Cylinder ISO connection	M5	M5	M5	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8	G3/8	G1/2	G1/2	G3/4	G3/4
Tube														
Tube diameter mm Ext / Int	4 / 2.7	4 / 2.7	4 / 2.7	6 / 4	6 / 4	6 / 4	8 / 6	8 / 6 10 / 8	10 / 8	12 / 9 14 / 11	12 / 9	16 / 13	18 / 15	22 / 16
FRL units														
Moduflex P3H														
Moduflex P3K														
Moduflex P3M														
Valves														
4mm inst. fitting valve														
M5 valve														
6mm inst. fitting valve														
1/8 valve														
1/4 valve														
3/8 valve														
1/2 valve														

Possible

Recommended

Cylinder speed < 0,5 m/s

Not recommended

General lightweight applications & Individual/multiple field bus connections

P2M Moduflex valves

See page: 128



- High flow, compact size.
- Mixable valve sizes.
- Stand alone valves, modular islands with individual, multiconnector or bus connections.
- Integrated selectable internal or external pilot supply and exhaust.
- Optional peripheral modules.
- Push-in connection.
- DIN rail or block mounting.

Poppet valve for enclosures

PS1 Interface

See page: 148

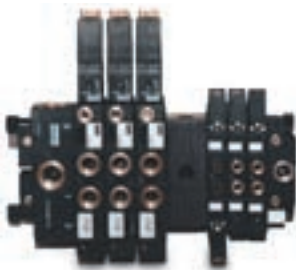


- High speed poppet valve
- Push-in connection
- Built-in terminal block
- Pneumatic output indicator
- DIN rail mounting

Stackable inline lightweight valve

PVL Compact valves

See page: 151



- High flow, compact size
- Push-in or threaded connection
- DIN rail or block mounting
- Light weight construction

ISO Valves

ISO 15407 / ISO 5599 - Plug-in / Non plug-in

General applications

Isomax valves

See page: 166



- Size 1, 2, 3, 01, 02 (26 and 18 mm)
- Ceramic technology for long life operation
- From vacuum up to 10 bar applications (15407-1)
- From vacuum up to 12 bar applications (5599-1)
- Internal or external pilot supply with same valves
- Common M12 (5599-1)
- M12 on each coil (5599-1)

Heavy duty applications, Multiple connection and Plug-in

Isys ISO valves

See page: 171

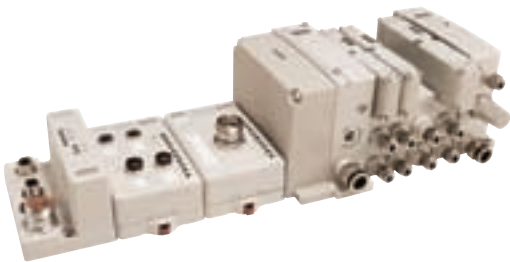


- Complete ISO valve range
- Heavy duty and corrosion resistant body
- Internal led & rectifier
- Vacuum up to 10 bar
- Internal or external pilot supply with same valve.
- Multiple connection, Sub-D25, M23, terminal blocks

Field Bus

Isysnet

See page: 192



- Compatible with Profibus DP, DeviceNet, ControlNet and Ethernet IP
- Accept signals from sensors, photo eyes, limit switches and other input devices
- Broad choice of I/O types with connector choice of 8mm, 12mm, 23mm
- Choice of digital, analog, or high watt I/O modules

Stand alone or on a manifold, Ideal for 1 to 4 valves for OEM

Heavy duty applications / Mobile

Viking Xtreme metal spool valves

See page: 205



- 4 sizes: G1/8, G1/4, G3/8 and G1/2.
- Wide operating temperature range
- Compact design with good corrosion resistance.
- Wide range of 5/2 and 5/3 versions.
- High and low temperature versions available for transport applications.

Industrial applications

B Series high performance industrial valves

See page: 217



- 2 sizes: 1/8" and 1/4"
- Compact size
- Inlet-exhaust-mounting facility
- Fast response, high flow
- Integrated mounting holes
- Wear compensating seal system
- DIN rail mountable manifolds

Miniature valves

ADEX directional control valves

See page: 233



- 2 sizes: M5 and 1/8"
- Compact body with large flow
- Quick response time, faster than 10ms
- Expected life time more than 50,000,000 cycles
- Low power consumption only 0.6W
- Optional multipin connector manifold
- Manual override

Mechanical Valves

Metal valves

Midget and Intermediate valves

See page: 239



- 43 series G1/8 body ported
- 53 series G1/4 body ported
- Stainless steel spool
- 3/2, 5/2 and 5/3 versions
- Viton body seals as standard
- Integral mounting holes

Push Buttons

General applications

PXB Control and process duty Ø 22mm

See page: 253



- Facia mounted operation
- 3/2 NO or NC
- Modular construction
- Wide range of actuators
- Dual pneumatic and electrical output signal

Heavy duty applications

VA - Brass bodied spool valves

See page: 256



- Rugged valves for heavy duty applications
- Large and robust actuators for easy operation
- Excellent corrosion resistance
- Integral mounting holes
- Panel mounting versions

General Automation and Assembly Cells

PXC Limit Switches

See page: 260



- High durability
- Very good repeat accuracy
- Design for process duty cycle
- Push-in connection
- Versatile and easily maintained
- Miniature size

Logic Processing

See page: 262



- Complete range
- Stand alone, stackable or combinable modules
- Very fast response time
- Flexible and highly maintainable system
- DIN rail mounting
- Ø 4mm connection

Airline Isolator

See page: 267



- In line installation
- High flow
- Internal supply for signal air
- Suitable as main shut-off or as power valve for cylinder and air motor
- Optional low-pressure hydraulic version

Two Hand Control Units

See page: 269



- Ergonomic design
- Robust polymer or metal enclosure
- Meets requirements for protection against accidental operation and tampering
- Metal enclosure features a wrist-rest bar which helps prevent illness due to repetitive actions
- Conforms to EN574 and EN954-1 requirements

Moduflex Valve System®

The Moduflex Valve® System redefines flexibility for pneumatic users. Whether configured from basic components or ordered as a pre-assembled and tested valve island, Moduflex flexibility is unmatched in the marketplace.



V Series



T Series



S Series



P Series

Innovative

The 6 patents awarded to the Moduflex valve system reflect that innovation is core to the Parker design process. Maintaining a clear understanding of our customer's expectations has defined the individuality of the Moduflex, and clearly differentiated it as a leading automation solution.

Adaptive

No other system can be adapted so simply once specified. Unique, captive fitting release system, quick release electrical connectors and single mechanical screw connection between manifolds offer the ultimate capability for late system design changes.

Multi-Functional

From stand-alone valves to fieldbus ready valve islands, from cylinder flow controls to vacuum generators with integrated blow-off, the Moduflex Valve System® meets the requirements of the whole automation spectrum.

Light-weight

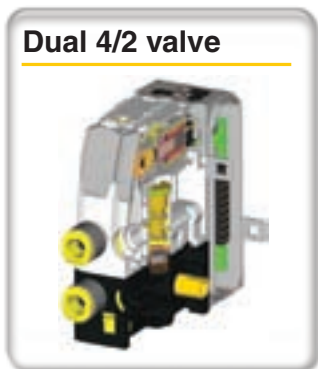
An Asi compatible valve manifold with 8 electrical inputs and 8 pneumatic outputs weighs a mere 800grams, making the Moduflex Valve System® the perfect choice for end of arm tooling application.

Moduflex Valve Technology

Two technology platforms enable the compact design and high performance of the Moduflex Valve System.

The compact dual 4/2 and 3/2 valves utilize well proven Parker seal technology. The standard 4/2 valves adopt the long life super durable ceramic switching technology.

Dual 4/2 valve

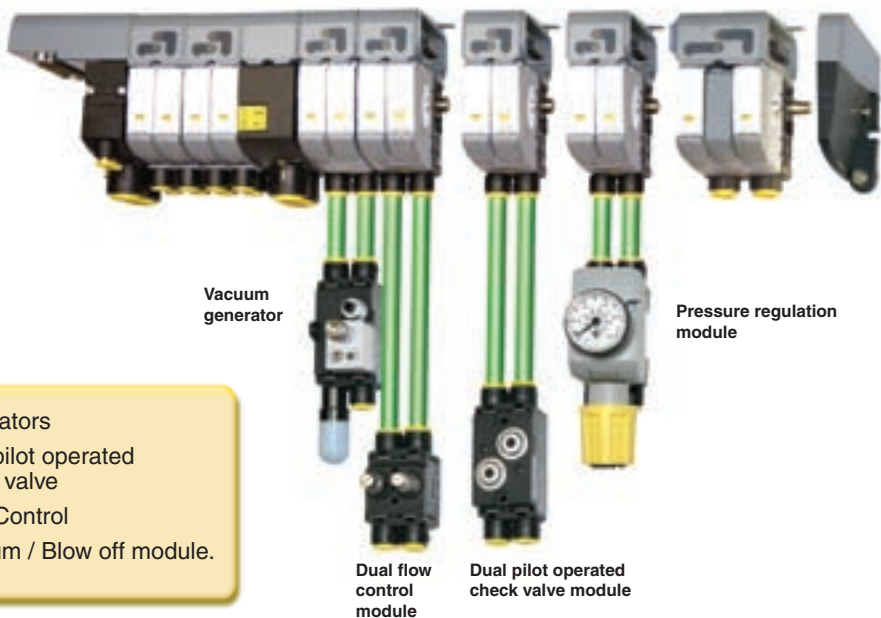


4/2 Valve



Moduflex Complete Control

With the introduction of the dual 4/2 size 1 valves, Moduflex now offers unrivaled ability of matching valves to exact flow requirements, ensuring cost and space are minimized. In addition, Moduflex Valve System® offers all the necessary control peripherals to provide a complete automation solution. Moduflex is the complete control package.



- Regulators
- Dual pilot operated check valve
- Flow Control
- Vacuum / Blow off module.

Operating information		Dual 4/2	Dual 3/2	3/2	4/2
Working pressure:	-0.9 to 8 bar				
Pilot pressure :	3 to 8 bar*				
Working temperature	-15 °C to +60 °C				
Protection Individual connectors	IP67 NEMA4				
Protection Integrated connectors	IP65				
Voltage: 24V DC					
* 2 x 3/2 and 3/2 3.5 to 8 bar					
Size 1	Qmax	333 l/min	415 l/min	415 l/min	510 l/min
	Qn	130 l/min	235 l/min	235 l/min	310 l/min
Size 2	Qmax	-	805 l/min	805 l/min	1340 l/min
	Qn	-	450 l/min	440 l/min	800 l/min

Ordering Options

Depending on the application requirements and production methods, Moduflex may be ordered as follows :

Basic Modules

These modules are supplied without connectors, the choice of plug-in connectors enables total flexibility in the field ;
(Preferred ordering method for best price and delivery.)



Complete Modules

Supplied complete with connectors, for use with valve islands or as stand-alone valves or peripheral modules ;
Consult your local distributor or Parker location for assembly information, price and delivery.



Pre-assembled Valve Islands

Supplied fully assembled to specifications and complete with pneumatic and electrical connectors. Islands can be easily configured with the Moduflex Configurator Software.
See technical catalogue CD.



Moduflex Island Configurator Software

*Available on CD within this catalog

valve island modules identification

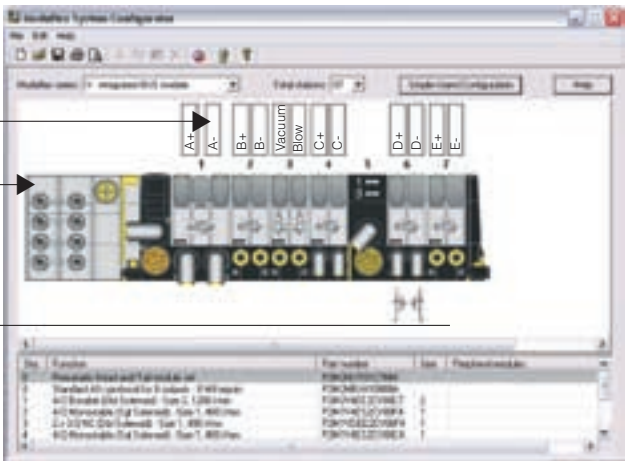
valve island graphic description with

valve module symbols, output connectors, pneumatic and electrical head module, etc.....

addition of peripheral modules

valve island composition with each

module description and order code



V series – Fieldbus and multi-connector valve islands

Pages 132 - 135



T series – Simple valve islands

Page 136 - 137



S series – Stand alone valves

Page 138 - 139



P series – Peripheral control modules

Page 140



Valve island modules with integrated connections

When a high number of valves are necessary, valves maybe configured with integrated electrical connectivity. These islands are then connected to the control PLC with a multi-connector cable or with a fieldbus connection.



Basic modules (without connectors) and corresponding clip-on pneumatic connectors

Size 1 Valve Modules

Description	Symbol	Weight (g)	Order code
4/2 Solenoid spring		94	P2M1V4ES2CV
4/2 Double solenoid		103	P2M1V4EE2CV
2 x 3/2 NC + NC with exhaust check valves		106	P2M1VDEE2CV
2 x 3/2 NO + NO with exhaust check valves		106	P2M1VCEE2CV
2 x 3/2 NC + NO with exhaust check valves		106	P2M1VEEE2CV
2 x 4/2 Solenoid spring with exhaust check valves		114	P2M1VJEE2CV
3/2 NC Solenoid spring with exhaust check valves		102	P2M1V3ES2CV
4/3 Centre exhaust = 2 x 3/2 NC + NC without exhaust check valve		106	P2M1VGEE2CV

P2M1V4ES2CV



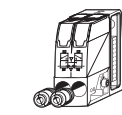
CMD06-1

P2M1VJEE2CV



FMD04-1

P2M1VDEE2CV



FMD04-1

Size 1 connectors Tube OD *

Description		W. (g)	Order code
Straight		4mm	2 FMD04-1
		6mm	3 FMD06-1
Elbow		4mm	5 CMD04-1
		6mm	3 CMD06-1
Plug		3	PMDXX1
Muffler		5	MMDVA1
Clip-on double male union		3	HMDXX1

* Pack quantity : 10

Size 2 Valve Modules

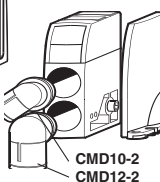
Description	Symbol	Weight (g)	Order code
4/2 Solenoid spring		100	P2M2V4ES2CV
4/2 Double solenoid		110	P2M2V4EE2CV
2 x 3/2 NC + NC with exhaust check valves		115	P2M2VDEE2CV
2 x 3/2 NO + NO with exhaust check valves		115	P2M2VCEE2CV
2 x 3/2 NC + NO with exhaust check valves		115	P2M2VEEE2CV
3/2 NC Solenoid spring with exhaust check valves		110	P2M2V3ES2CV
4/3 Centre exhaust = 2 x 3/2 NC + NC without exhaust check valve		115	P2M2VGEE2CV

P2M2V4EE2CV



CMD10-2

P2M2HXT01



CMD10-2

CMD12-2

P2M2BXV0A



FMD10-2

CMD12-2

Size 2 connectors Tube OD *

Description		W. (g)	Order code
Straight		6mm	3 FMD06-2
		8mm	4 FMD08-2
		10mm	5 FMD10-2
		12mm	6 FMD12-2
Elbow		6mm	5 CMD06-2
		8mm	6 CMD08-2
		10mm	7 CMD10-2
		12mm	8 CMD12-2
Plug		5	PMDXX2
Muffler		3	MMDVA2
Clip-on double male union		8	HMDXX2

* Pack quantity : 10

Head & Tail sets and Intermediate supply exhaust modules

Valve Island Pneumatic head and tail module set

P2M2HXT01

Valve Island Intermediate supply module with a set of 4 configurations plates

P2M2BXV0A

Size 2 connectors should be specified with head and tail sets.

Indicates stocked product.

Order codes V Series - Complete modules (on order)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

P 2 M 1 V 4 E E 2 C V 0 0 F 6

Size option	
1	Size 1
2	Size 2

Series	
V	Valvetronic

Valve Function - Solenoid Versions	
4 E S	4/2 - Single solenoid
4 E E	4/2 - Double solenoid
J E E	2 x 4/2 - 2 x 1 solenoid
D E E	2 x 3/2 - Normally closed
C E E	2 x 3/2 - Normally open (4/3 PC)
B E E	2 x 3/2 - Normally closed + PO check (4/3 APB)
E E E	2 x 3/2 - 1 x Open, 1 x Closed
G E E	4/3 CE - 2 x 3/2 - Normally closed
3 E S	3/2 Single solenoid

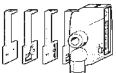
PC = Pressure Centre
APB = All Ports Blocked
CE = Centre Exhausted

Pneumatic connectors		
Ports 2 & 4		
Size 1 modules		
F4	straight	4mm OD
C4	elbow	4mm OD
F6	straight	6mm OD
C6	elbow	6mm OD
Size 2 modules		
F6	straight	6mm OD
C6	elbow	6mm OD
F8	straight	8mm OD
C8	elbow	8mm OD
F0	straight	10mm OD
C0	elbow	10mm OD

For basic modules, leave digits 12 - 15, blank.

Head/Tail & Intermediate Module Ordering Guide (on order)

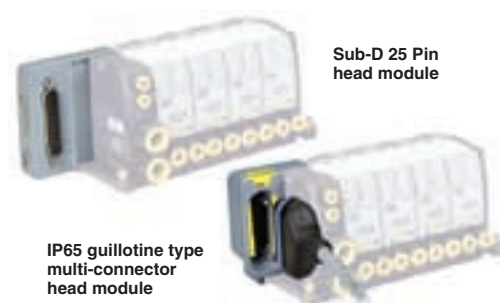
P 2 M 2 H X T 0 1 F 0 C 2

Island head or intermediate module function	
HXT01	Pneumatic head and tail set 
BXV0A	V series intermediate supply module with a set of 4 configuration plates 

Pressure port connector	
F6	straight 6mm OD
C6	elbow 6mm OD
F8	straight 8mm OD
C8	elbow 8mm OD
F0	straight 10mm OD
C0	elbow 10mm OD
F2	straight 12mm OD
C2	elbow 12mm OD
PP	plug
MM	muffler

Exhaust port connector	
F6	straight 6mm OD
C6	elbow 6mm OD
F8	straight 8mm OD
C8	elbow 8mm OD
F0	straight 10mm OD
C0	elbow 10mm OD
F2	straight 12mm OD
C2	elbow 12mm OD
PP	plug
MM	muffler

Electrical multi-connection head modules



Sub D25 standard multi-connector head module

P2M2HEV0D

Sub D25 connector with flying leads - 3m cable

P8LMH25M3A

IP65 guillotine type multi-connector head module

P2M2HEV0A

Complementary connector with flying leads multi-cable

2 m. cable

P8LMH20M2A

5 m. cable

P8LMH20M5A

9 m. cable

P8LMH20M9A

Field bus connection head modules : to be chosen from next page.



AS-i protocol head modules

Standard AS-i protocol (up to 31 nodes) electrical head modules



Electrical module for **8 outputs** max.

- V series islands may have up to 8 solenoid pilots
- 2 nodes per module, 4 I / 4 O per node

Input connections

Order code

no input

P2M2HBVA10800

8 M8 inputs

P2M2HBVA10808A

4 inputs on 4 M12

P2M2HBVA10808B



Electrical module for **4 outputs** max.

- V series islands may have up to 8 solenoid pilots
- 1 node per module, 4 I / 4 O per node

No inputs

P2M2HBVA10400

4 inputs on 4 M12

P2M2HBVA10404B



Electrical module for **6 outputs** max.

- V series islands may have up to 6 solenoid pilots
- 2 nodes per module, 4 I / 3 O per node

none

P2M2HBVA20600

8 M8 Inputs

P2M2HBVA20608A

8 inputs on 4 M12

P2M2HBVA20608B

AS-i version 2-1 protocol (up to 62 nodes) electrical head modules

AS-i bus accessories

AS-i bus accessories

Length

Order code

M12 cable with jack for addressing

1 m

P8LS12JACK

 Indicates stocked product.

Device bus electrical head modules

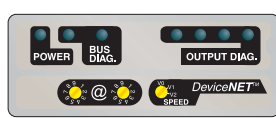
electrical module for 16 outputs max.
(V series islands may have up to 16 solenoid pilots)

PROFI
BUS



Bus protocol	Order code
Profibus DP	P2M2HBVP11600

DeviceNet™



Bus protocol	Order code
DeviceNet	P2M2HBVD11600

INTERBUS-S



Bus protocol	Order code
Interbus S	P2M2HBVS11600

CANopen



Bus protocol	Order code
CANopen	P2M2HBVC11600

 Indicates stocked product.

Valve island modules with individual connectors : T series

For simple systems, valve islands may be configured using individual valve wiring or air pilot connections.



Basic modules (without connectors) and corresponding clip-on electrical and pneumatic connectors

Size 1 Valve Modules

Description	Symbol	Weight (g)	Order code
4/2 Solenoid spring		68	P2M1T4ES2C
4/2 Double solenoid		77	P2M1T4EE2C
2 x 3/2 NC + NC with exhaust check valves		80	P2M1TDDEE2C
2 x 3/2 NO + NO with exhaust check valves		80	P2M1TCCEE2C
2 x 3/2 NC + NO with exhaust check valves		80	P2M1TEEE2C
2 x 4/2 Solenoid spring with exhaust check valves		88	P2M1TJEE2C
3/2 NC Solenoid spring with exhaust check valves		76	P2M1T3ES2C
4/3 Centre exhaust = 2 x 3/2 NC + NC without exhaust check valve		80	P2M1TGEE2C

P2M1T4ES2C



P2M1TJEE2C



P2M1TDDEE2C



FMD04-1

Size 1 connectors Tube OD *

Description	W. (g)	Order code
Straight	4mm	2 FMD04-1
	6mm	3 FMD06-1
Elbow	4mm	5 CMD04-1
	6mm	3 CMD06-1
Plug		3 PMDXX1
Muffler		5 MMDVA1
Clip-on double male union		3 HMDXX1

* Pack quantity : 10

Size 2 Valve Modules

Description	Symbol	Weight (g)	Order code
4/2 Solenoid spring		74	P2M2T4ES2C
4/2 Double solenoid		83	P2M2T4EE2C
2 x 3/2 NC + NC with exhaust check valves		94	P2M2TDDEE2C
2 x 3/2 NO + NO with exhaust check valves		94	P2M2TCCEE2C
2 x 3/2 NC + NO with exhaust check valves		94	P2M2TEEE2C
3/2 NC Solenoid spring with exhaust check valves		90	P2M2T3ES2C
4/3 Centre exhaust = 2 x 3/2 NC + NC without exhaust check valve		94	P2M2TGEE2C

P2M2T4EE2C

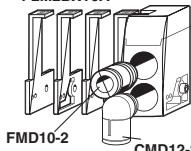


P8LS08L526C

P2M2HXT01



P2M2BXT0A



FMD10-2

CMD12-2

Size 2 connectors Tube OD *

Description	Order code
Straight	6mm FMD06-2
	8mm FMD08-2
	10mm FMD10-2
	12mm FMD12-2
Elbow	6mm CMD06-2
	8mm CMD08-2
	10mm CMD10-2
	12mm CMD12-2
Plug	PMDXX2
Muffler	MMDVA2
Clip-on double male union	HMDXX2

* Pack quantity : 10

Head & Tail sets and Intermediate supply exhaust modules for T series

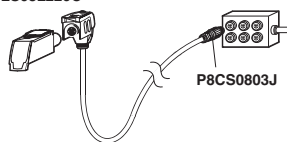
Valve Island Pneumatic head and tail module set	P2M2HXT01
Valve Island Intermediate supply module with a set of 4 configurations plates	P2M2BXT0A

Size 2 connectors should be specified with head and tail sets.

Indicates stocked product.

Electrical connectors

P8LS08L226C



Clip-on individual electrical pilot, for each solenoid pilot, with LED, voltage surge protection and flying lead cable IP67 protected



2 m. cable	P8LS08L226C
5 m. cable	P8LS08L526C
9 m. cable	P8LS08L926C

Straight cable or thread connector, IP67 protected.



M8 cable quick connect	P8CS0803J
M12 cable quick connect	P8CS1204J

Complete modules T Series - Ordering guide

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
P	2	M	1	T	4	E	E	2	C	V	2	0	F	6

Size option	
1	Size 1
2	Size 2

Series	
T	Individual connectors

Valve Function - Solenoid Versions		
4ES	4/2 - Single solenoid	
4EE	4/2 - Double solenoid	
JEE	2 x 4/2 - 2 x 1 solenoid	
DEE	2 x 3/2 - Normally closed	
CEE	2 x 3/2 - Normally open (4/3 PC)	
BEE	2 x 3/2 - Normally closed + PO check (4/3 APB)	
EEE	2 x 3/2 - 1 x Open, 1 x Closed	
GEE	4/3 CE - 2 x 3/2 - Normally closed	
3ES	3/2 Single solenoid	
Valve Function - Air Pilot Versions *		
4PS	4/2 Single air pilot	
4PP	4/2 Double air pilot	
JPP	2 x 4/2 - 2 x 1 air pilot	
DPP	2 x 3/2 - Normally closed	
CPP	2 x 3/2 - Normally open (4/3 PC)	
BPP	2 x 3/2 - Normally closed + PO check (4/3 APB)	
EPP	2 x 3/2 - 1 x Open, 1 x Closed	
GPP	4/3 CE - 2 x 3/2 - Normally closed	
3PS	3/2 Single solenoid	

Electrical connector	
0	No cable
2	2m cable
5	5m cable
9	9m cable

* For air pilot versions leave digits 9 - 15 blank. (Basic modules only)

Pneumatic connectors		
Ports 2 & 4		
Size 1 modules		
F4	straight	4mm OD
C4	elbow	4mm OD
F6	straight	6mm OD
C6	elbow	6mm OD
Size 2 modules		
F6	straight	6mm OD
C6	elbow	6mm OD
F8	straight	8mm OD
C8	elbow	8mm OD
F0	straight	10mm OD
C0	elbow	10mm OD

PC = Pressure Centre
APB = All Ports Blocked
CE = Centre Exhausted

For basic modules, leave digits 11 - 15, blank.

Head/Tail & Intermediate Module Ordering Guide

P	2	M	2	H	X	T	0	1	F	0	C	2

Island head or intermediate module function	
HXT01	Pneumatic head and tail set
BXT0A	T series intermediate supply module with a set of 4 configuration plates

Pressure port connector	
F6	straight 6mm OD
C6	elbow 6mm OD
F8	straight 8mm OD
C8	elbow 8mm OD
F0	straight 10mm OD
C0	elbow 10mm OD
F2	straight 12mm OD
C2	elbow 12mm OD
PP	plug
MM	muffler

Exhaust port connector	
F6	straight 6mm OD
C6	elbow 6mm OD
F8	straight 8mm OD
C8	elbow 8mm OD
F0	straight 10mm OD
C0	elbow 10mm OD
F2	straight 12mm OD
C2	elbow 12mm OD
PP	plug
MM	muffler

Indicates stocked product.

Stand-Alone Valve Modules : S series

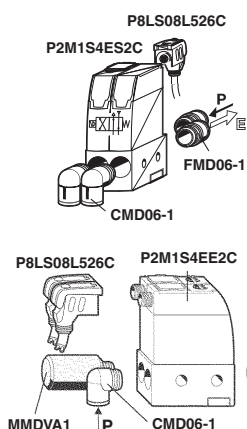
For control of isolated cylinders, a stand-alone valve module is ideal. Pull-out mounting feet are integrated into the base for simple installation.



Basic modules (without connectors) and corresponding clip-on electrical and pneumatic connectors

Size 1 Valve Modules

Description	Symbol	W (g)	Order code
4/2 Solenoid spring		72	P2M1S4ES2C
4/2 Double solenoid		87	P2M1S4EE2C
2 x 3/2 NC + NC with exhaust check valves		85	P2M1SDEE2C
2 x 3/2 NO + NO with exhaust check valves		85	P2M1SCEE2C
2 x 3/2 NC + NO with exhaust check valves		85	P2M1SEEE2C
3/2 NC Solenoid spring with exhaust check valves		85	P2M1S3ES2C
4/3 Centre exhaust = 2 x 3/2 NC + NC without exhaust check valve		85	P2M1SGEE2C



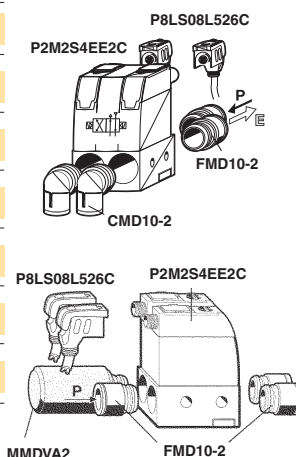
Size 1 connectors Tube OD *

Description	W. (g)	Order code
Straight	4mm	FMD04-1
	6mm	FMD06-1
Elbow	4mm	CMD04-1
	6mm	CMD06-1
Plug	3	PMDXX1
Muffler	5	MMDVA1
Clip-on double male union	3	HMDXX1

* Pack quantity : 10

Size 2 valve Modules

Description	Symbol	W (g)	Order code
4/2 Solenoid spring		72	P2M2S4ES2C
4/2 Double solenoid		87	P2M2S4EE2C
2 x 3/2 NC + NC with exhaust check valves		85	P2M2SDEE2C
2 x 3/2 NO + NO with exhaust check valves		85	P2M2SCEE2C
2 x 3/2 NC + NO with exhaust check valves		85	P2M2SEEE2C
3/2 NC Solenoid spring with exhaust check valves		85	P2M2S3ES2C
4/3 Centre exhaust = 2 x 3/2 NC + NC without exhaust check valve		85	P2M2SGEE2C



Size 2 connectors Tube OD *

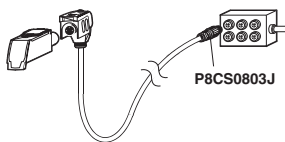
Description	W. (g)	Order code
Straight	6mm	FMD06-2
	8mm	FMD08-2
	10mm	FMD10-2
	12mm	FMD12-2
Elbow	6mm	CMD06-2
	8mm	CMD08-2
	10mm	CMD10-2
	12mm	CMD12-2
Plug	5	PMDXX2
Muffler	3	MMDVA2
Clip-on double male union	8	HMDXX2

* Pack quantity : 10

Indicates stocked product.

Electrical connectors

P8LS08L226C



Clip-on individual electrical connector, for each solenoid pilot, with LED, voltage surge protection and flying lead cable IP67 protected

Straight cable or thread connector, IP67 protected.



2 m. cable	P8LS08L226C
5 m. cable	P8LS08L526C
9 m. cable	P8LS08L926C
M8 cable quick connect	P8CS0803J
M12 cable quick connect	P8CS1204J

Order codes S Series - Complete modules (on order)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

P 2 M 1 S 4 E E 2 C V 5 A F 6

Size option

1	Size 1
2	Size 2

Series

S	Stand alone modules

Electrical connector

0	No cable
2	2m cable
5	5m cable
9	9m cable

Valve Function - Solenoid Versions

4 E S	4/2 - Single solenoid
4 E E	4/2 - Double solenoid
D E E	2 x 3/2 - Normally closed
C E E	2 x 3/2 - Normally open (4/3 PC)
B E E	2 x 3/2 - Normally closed + PO check (4/3 APB)
E E E	2 x 3/2 - 1 x Open, 1 x Closed
G E E	4/3 CE - 2 x 3/2 - Normally closed
3 E S	3/2 Single solenoid

Valve Function - Air Pilot Versions *

4 P S	4/2 Single air pilot
4 P P	4/2 Double air pilot
D P P	2 x 3/2 - Normally closed
C P P	2 x 3/2 - Normally open (4/3 PC)
B P P	2 x 3/2 - Normally closed + PO check (4/3 APB)
E P P	2 x 3/2 - 1 x Open, 1 x Closed
G P P	4/3 CE - 2 x 3/2 - Normally closed
3 P S	3/2 Single solenoid

Pneumatic connectors

Ports 1 & 3		Ports 2 & 4		Tube OD	
A	Straight & straight	F	Straight & straight	Size 1 modules	
B	Elbow & elbow	C	Elbow & elbow	4	4mm OD
C	Straight & muffler	0	No connector for plug-in P module	6	6mm OD
D	Elbow & muffler			Size 2 modules	
				6	6mm OD
				8	8mm OD
				0	10mm OD

* For air pilot versions leave digits 9 - 15 blank. (Basic modules only)

For basic modules, leave digits 11 - 15, blank.

PC = Pressure Centre
APB = All Ports Blocked
CE = Centre Exhausted



Indicates stocked product.

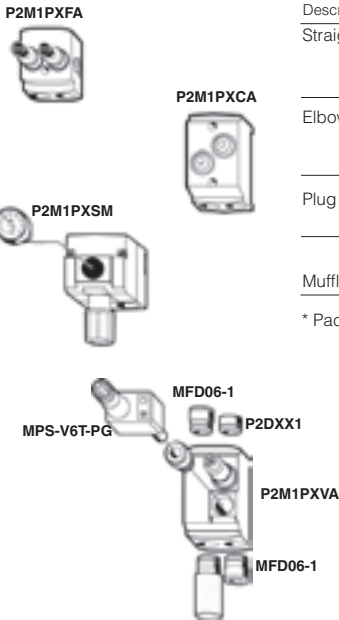
Basic peripheral modules (without connectors) and corresponding clip-on pneumatic connectors

Size 1 Peripheral Modules

Description	W. (g)	Order code
Dual flow control	50	P2M1PXFA
Dual P.O. check valve	50	P2M1PXCA
Pressure regulator	0-2 bar 135	P2M1PXSR
	0-4 bar 135	P2M1PXSM
	0-8 bar 135	P2M1PXSG
With pressure gauge		
Vacuum generator	90% Vac 30	P2M1PXVA

Vacuum accessories

Sensor	10	MPS-V6T-PC
	70	MPS-V6T-PG
Silencer	5	P6M-PAB1



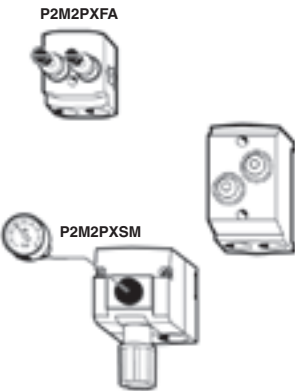
Size 1 connectors Tube OD *

Description	W. (g)	Order code
Straight	4mm	FMD04-1
	6mm	FMD06-1
Elbow	4mm	CMD04-1
	6mm	CMD06-1
Plug	3	PMDXX1
Muffler	5	MMDVA1

* Pack quantity : 10

Size 2 Peripheral Modules

Description	W. (g)	Order code
Dual flow control	75	P2M2PXFA
Dual P.O. check valve	70	P2M2PXCA
Pressure regulator	0-2 bar 165	P2M2PXSR
	0-4 bar 165	P2M2PXSM
	0-8 bar 165	P2M2PXSG
With pressure gauge		



Size 2 connectors Tube OD *

Description	W. (g)	Order code
Straight	6mm	FMD06-2
	8mm	FMD08-2
	10mm	FMD10-2
	12mm	FMD12-2
Elbow	6mm	CMD06-2
	8mm	CMD08-2
	10mm	CMD10-2
	12mm	CMD12-2
Plug	5	PMDXX2

* Pack quantity : 10

Clip-on pressure gauges

Clip-on pressure gauge for pressure regulator modules, size 1 or size 2.
Pressure gauge is equipped with a damper to protect it from pressure oscillations.



	W. (g)	Order code
0 to 2 bar	30	P2M1K0GT
0 to 4 bar	30	P2M1K0GL
0 to 8 bar	30	P2M1K0GN

 Indicates stocked product.

1 - Multi-connector or sub-D 25 valve island

Multi-connector
or sub-D 25
electrical head module
width : 15 mm

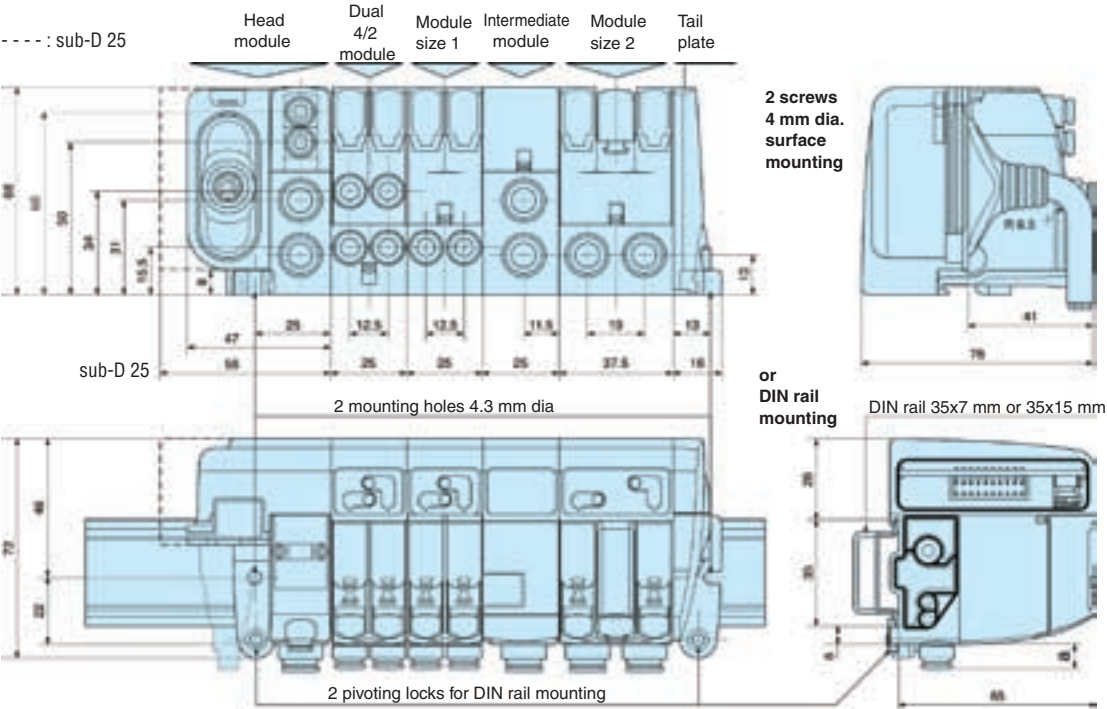
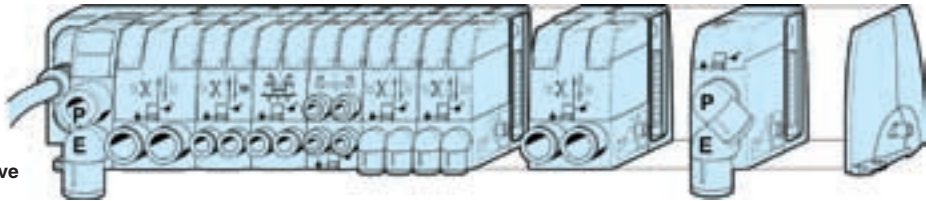
Head and tail
pneumatic module set
width : 48 mm

Modules
size 1
width : 25 mm

Modules
size 2
width : 37.5 mm

Intermediate
module
width : 25 mm

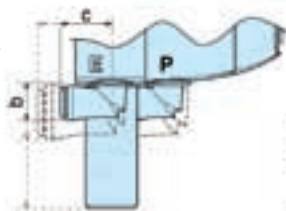
Island total width
depending on valve
composition



Special case : 4/3 closed centre function within island version :
Add the dimensions of the dual P.O. check valve module plugged
into the island.

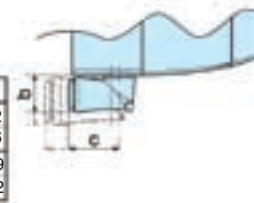
Island head and intermediate modules

	a	b	c
6 mm tube OD	8	13	16
8 mm tube OD	9	16	19
10 mm tube OD	13	18	22
12 mm tube OD	13	19	25
muffler		40	



Island valves modules

	OD tube	a	b	c
Size 1 modules	4 mm	8	10	12
	6 mm	8	13	16
Size 2 modules	8 mm	9	16	19
	10 mm	13	18	22



2 - Field bus connected islands

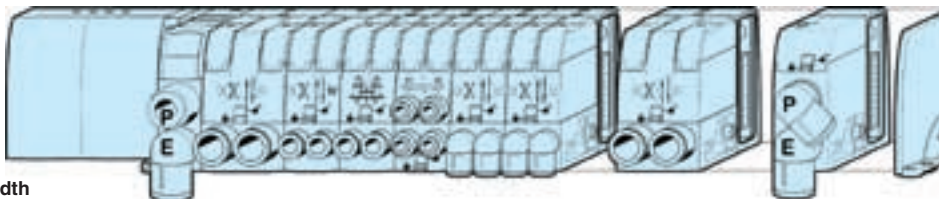
Electrical field
bus head module
width : 62 mm

Head and tail
pneumatic module set
width : 48 mm

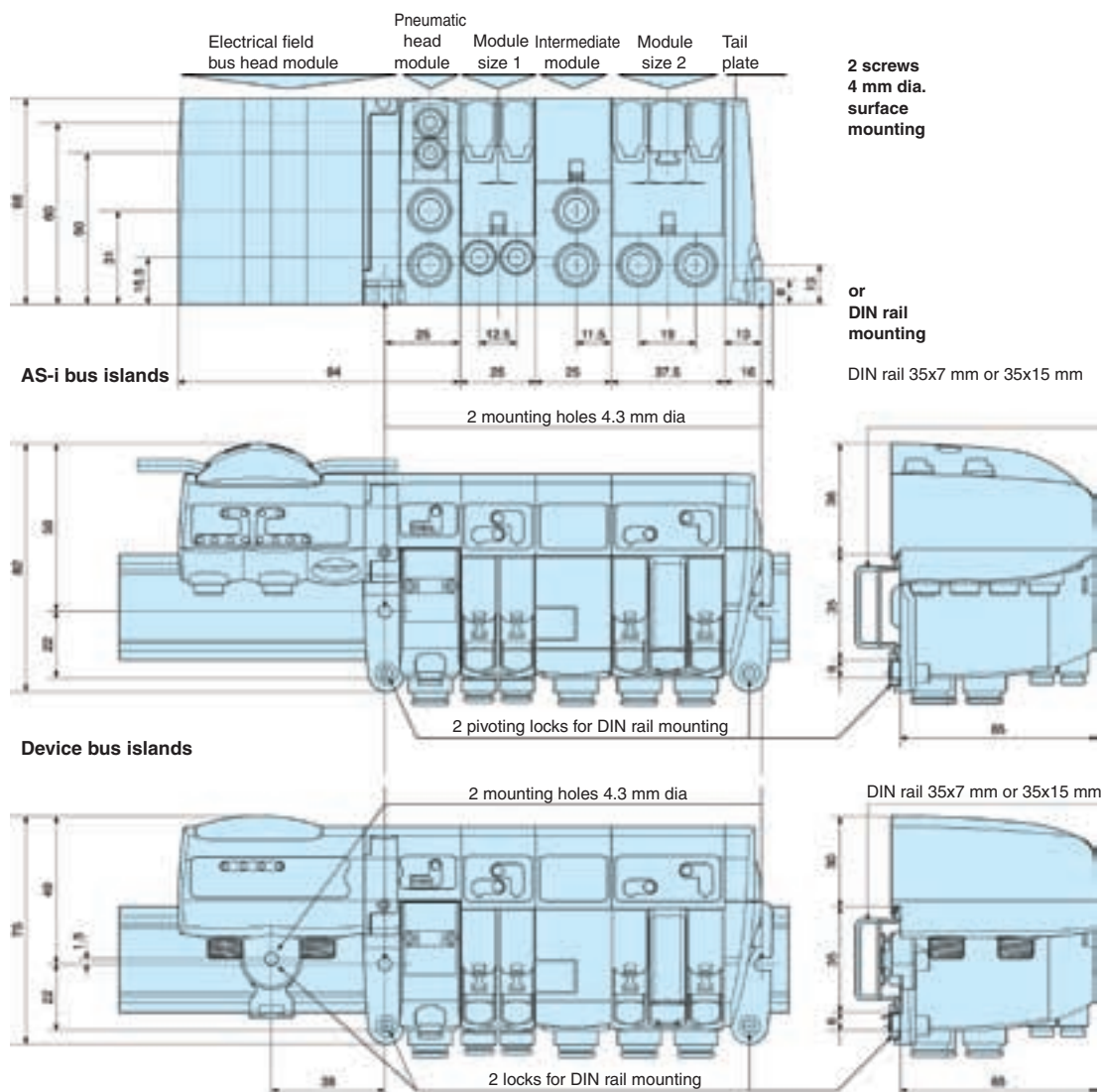
Modules
size 1
width : 25 mm

Modules
size 2
width : 37.5 mm

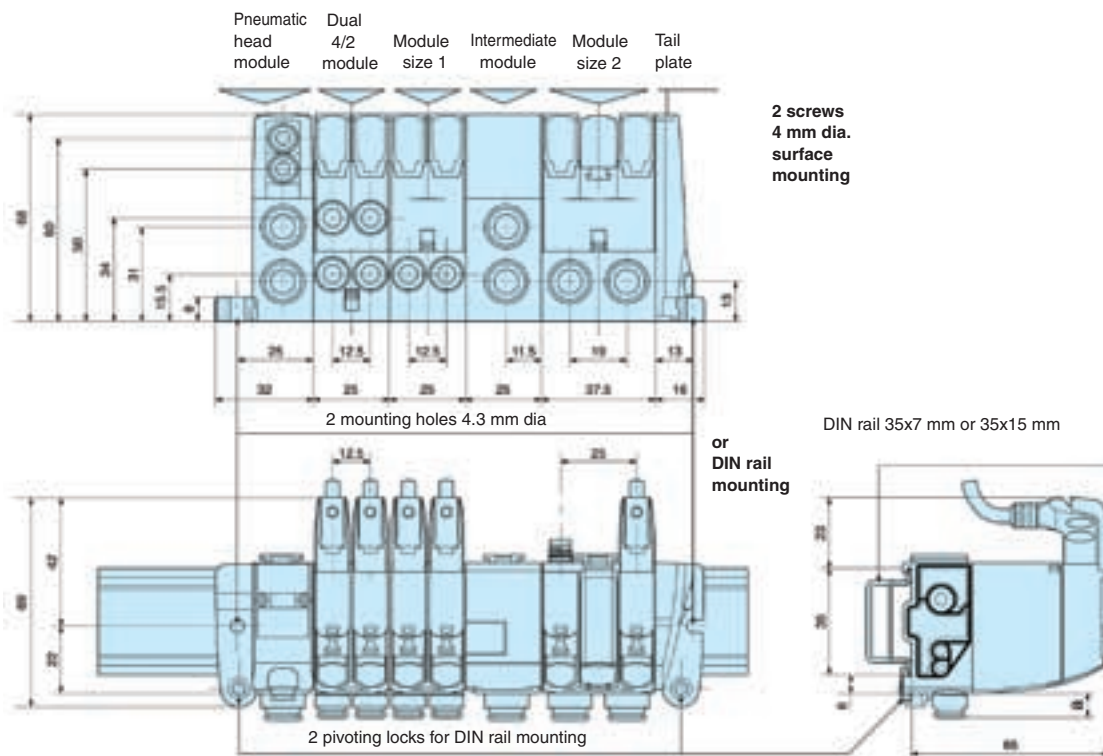
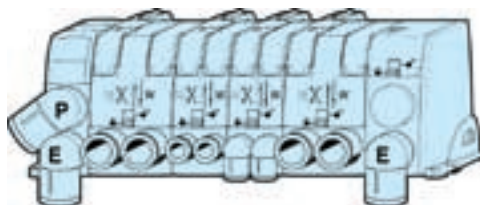
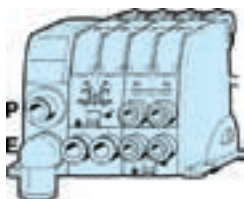
Intermediate
module
width : 25 mm



Island total width
depending on valve
composition

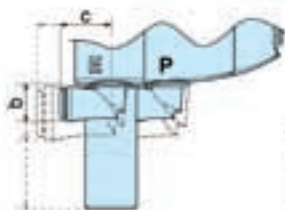


	Pneumatic head and tail module	Modules size 1	Modules size 2	Intermediate module
width⇒	48 mm	25 mm	37.5 mm	25 mm



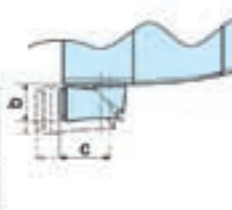
Island head and intermediate modules

	a	b	c
6 mm tube OD	8	13	16
8 mm tube OD	9	16	19
10 mm tube OD	13	18	22
12 mm tube OD	13	19	25
muffler		40	



Island valves modules

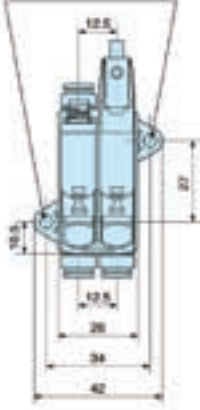
	OD tube	a	b	c
Size 1 modules	4 mm	8	10	12
	6 mm	8	13	16
Size 2 modules	8 mm	9	16	19
	10 mm	13	18	22



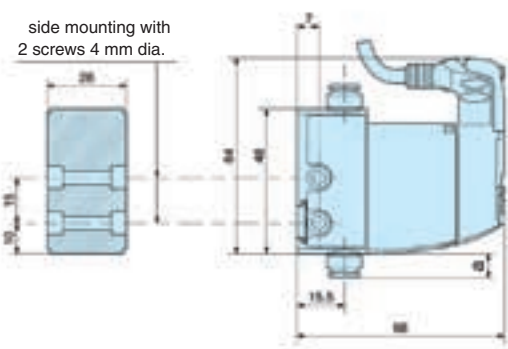
Stand-alone
valve
size 1



surface mounting with screws
4 mm dia. into retractable brackets 3 mm thick



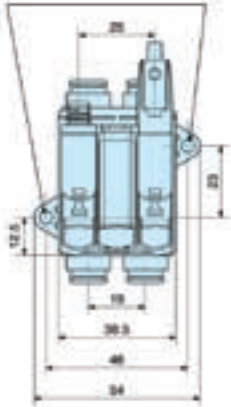
or side mounting with
2 screws 4 mm dia.



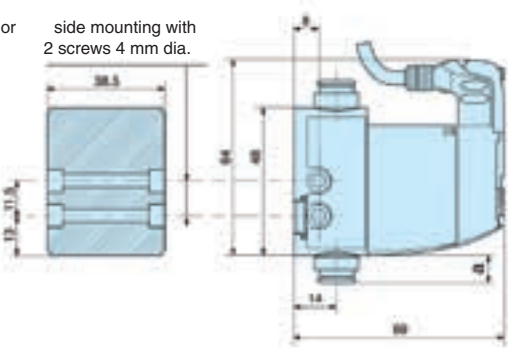
Stand-alone
valve
size 2



surface mounting with screws
4 mm dia. into retractable brackets 3 mm thick



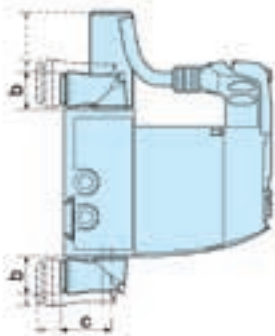
or side mounting with
2 screws 4 mm dia.



Dimensions and mountings
of the stand-alone valves
4/2, double and single 3/2,
4/3 vented centre and
4/3 pressure centre.

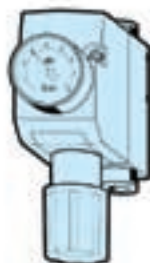
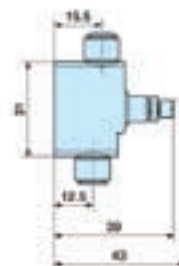
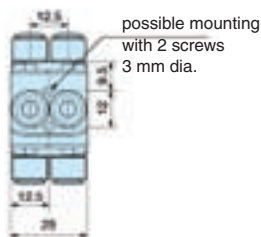
Special case : 4/3 closed centre.
Add the dual P.O. check
valve module that has been
plugged in the basic valve.

		a	b	c
Size 1 modules	4 mm tube OD	8	10	12
	6 mm tube OD	8	13	16
	muffler		31	
Size 2 modules	8 mm tube OD	9	16	19
	10 mm tube OD	13	18	22
	muffler		40	

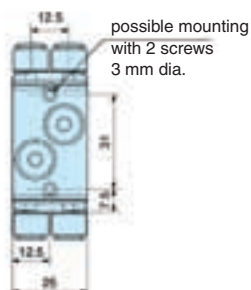
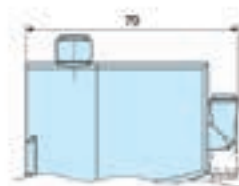
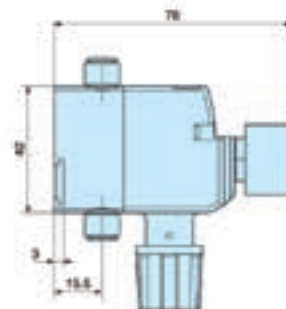


peripheral module plugged in a valve or an island

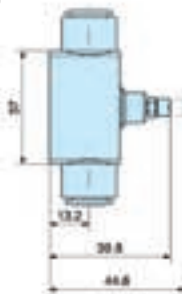
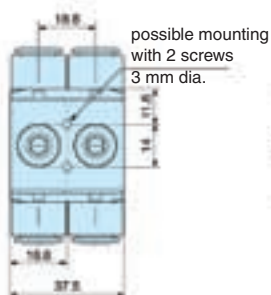
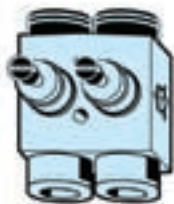
in-line peripheral modules : mounting is required



Technical drawing of the front view of a mechanical component. The drawing shows a central circular feature with a dial-like face. Dimensions are indicated as follows: 12.3 (width of the top section), 78.6 (total height), 25 (width of the central section), 34 (width of the base), 42 (width of the bottom section), 10.6 (height of the top section), and 10.6 (height of the bottom section).

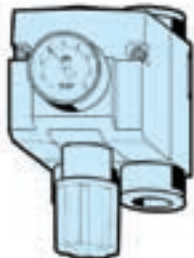


Dual flow control module size 2

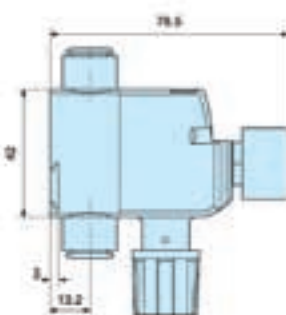
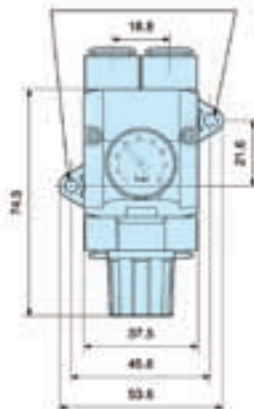


Pressure regulation module size 2

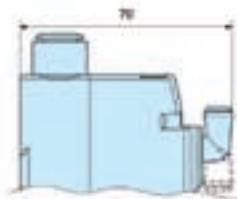
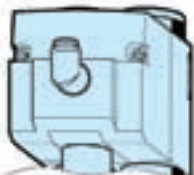
- with gauge



mounting with 2 screws 4 mm dia.
on retractable brackets

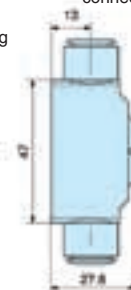
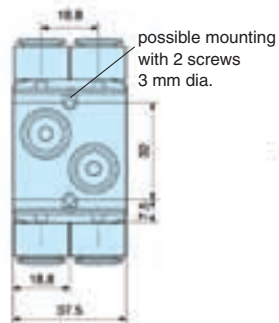
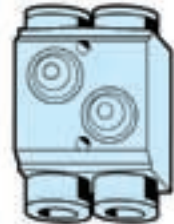
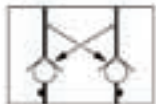


- without gauge



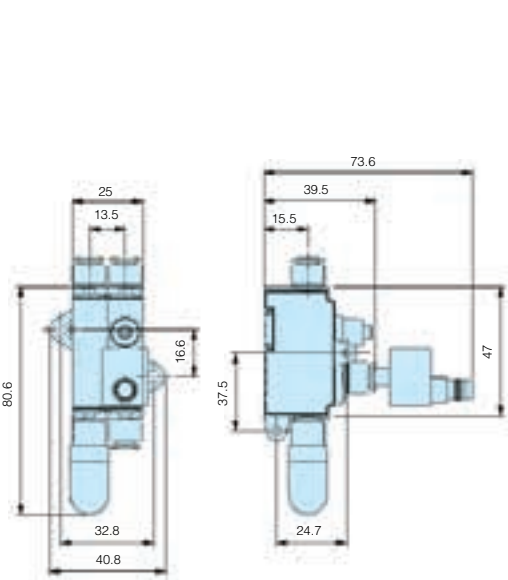
swivel elbow push-in
connector 4 mm OD tube

Dual P.O. check valve module size 2

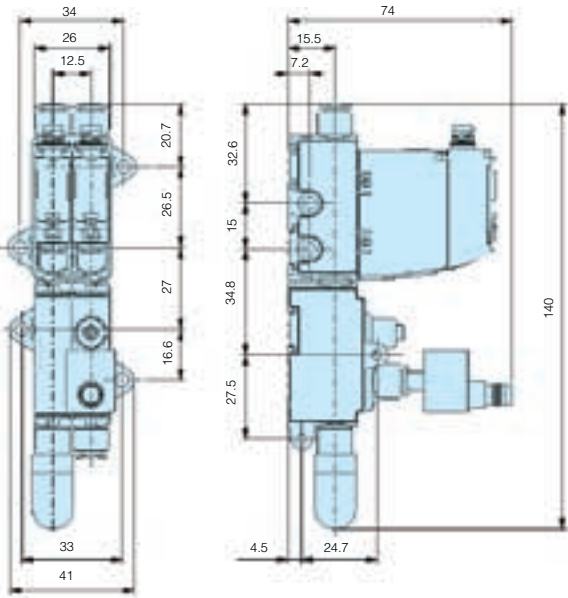


Vacuum generator module

In-line



With Moduflex valve



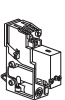
High speed poppet type solenoid valves with individual electrical connections. Light weight plastic bodies with DIN rail manifold. Ideal for cabinet installations.

- High speed poppet valve
- Push-in connection
- Built-in terminal block
- Pneumatic output indicator
- DIN rail mounting

Poppet valve, not suitable for use with Soft or Slow start Valves.
When pressure is applied, the double solenoid interface takes a pre-determined position (non activated). In the absence of electrical signal, output 2 (yellow indicator) is activated, output 4 (red indicator) is non activated. Double solenoid version is delivered as standard with Non locking flush override.

Electro-Pneumatic modules 3/2

With solenoid valve, output with Ø4 mm Push-in connection
Visual indication of pneumatic output (NC) red : (NO) yellow
Spring return manual override. 24V DC

Symbol	Order code
 	PS1-E21102B
	PS1-E22102B

Head and tail sets - intermediate supply modules

For 3/2 and 4/2 interface modules

	Description	Pneumatic connection	Characteristics	Order code
	Set for single air supply connection	Push-in Ø 6 mm	1 electrical common terminal 1 main air supply port 1 exhaust port	PS1-E101
		G1/8		PS1-E1018
	Set for double air supply connection	Push-in Ø 6 mm	1 electrical common terminal 2 main air supply ports 2 exhaust ports	PS1-E102
		G1/8		PS1-E1028
	Intermediate air supply module	Threaded G1/8 (see description below) *	1 air supply port 1 exhaust port	PS1-E1038

Incorporating an intermediate supply module into a group of electro-pneumatic modules gives the following options:

Air supply connection

- Additional G1/8 port to supplement the air supply to the manifold
- Blank the common air supply, enabling different pressures to be supplied to groups of modules within the manifold

Exhaust connection

- Additional exhaust flow through the G1/8 port
- Blank the common exhaust, enabling separation of exhaust from module groups

* The intermediate supply module is supplied with 4 interchangeable connectors to enable the above supply options to be achieved

 Indicates stocked product.



Operating information

Working pressure;	
3/2 and 4/2:	3-8 bar
Low pressure interface 3/2:	1-8 bar
Flow (Qmax):	200 l/min
Working temperature	-15 °C to +60 °C
For technical information see CD	

Electro-Pneumatic modules 4/2

With solenoid valve, two outputs with Ø 4 mm Push-in connections
Visual indication of pneumatic output (NC) red and (NO) yellow
Spring return manual override. 24V DC

Symbol	Order code
 	PS1-E28102B
 	PS1-E29102B

Electro-Pneumatic modules 3/2

Modules without solenoid valve*
3 to 8 bar version

Symbol	Connection	Actuator	Return	Order code
	Push-in Ø4 mm Visual indication of pneumatic output (NC) red	Solenoid	Spring	PS1-E111
	Push-in Ø6 mm Visual indication of pneumatic output (NC) red	Solenoid	Spring	PS1-E116
	Push-in Ø4 mm Visual indication of pneumatic output (NO) yellow	Solenoid	Spring	PS1-E121
	Push-in Ø6 mm Visual indication of pneumatic output (NO) yellow	Solenoid	Spring	PS1-E126

Electro-Pneumatic modules 3/2

Modules without solenoid valve* - 1 to 8 bar version

Symbol	Connection	Actuator	Return	Order code
	Push-in Ø4 mm Visual indication of pneumatic output (NC) red	Solenoid	Spring	PS1-E311
	Push-in Ø6 mm Visual indication of pneumatic output (NC) red	Solenoid	Spring	PS1-E316

* To obtain a complete Electro-Pneumatic interface module, order:
1 module without solenoid valve (e.g.: PS1-E121) + 1 solenoid
valve (e.g.: PS1-E2302B)

Solenoids 15 mm 1,2 W / 1,6 VA (8mm pin spacing)



Spring return manual override

Voltage	Order code
24 VDC	P2E-KS32C1
48 VDC	P2E-KS32D1
24 V 50/60Hz	P2E-KS31C1
48 V 50/60Hz	P2E-KS34D1
115 V 50Hz, 120 V 60Hz	P2E-KS31F1
230 V 50Hz, 240 V 60Hz	P2E-KS31J1

Indexing manual override

Voltage	Order code
24 VDC	P2E-KS32C2
48 VDC	P2E-KS32D2
24 V 50/60Hz	P2E-KS31C2
48 V 50/60Hz	P2E-KS34D2
115 V 50Hz, 120 V 60Hz	P2E-KS31F2
230 V 50Hz, 240 V 60Hz	P2E-KS31J2

 Indicates stocked product.

Electro-Pneumatic modules 4/2

Modules without solenoid valve*

Visual indication of pneumatic output (NC) red and (NO) yellow

Symbol	Connection	Actuator	Return	Order code
	Push-in Ø4 mm	Solenoid	Solenoid	PS1-E191
	Push-in Ø6 mm	Solenoid	Solenoid	PS1-E196
	Push-in Ø4 mm	Solenoid	Spring	PS1-E181
	Push-in Ø6 mm	Solenoid	Spring	PS1-E186

* To obtain a complete Electro-Pneumatic interface module, order:
1 module without solenoid valve (e.g.: PS1-E191) + 2 solenoids
valves (e.g.: PS1-E2302B)

Suppressor and LED indicators

For mounting between the solenoid valve and the cable plug.

Symbol	Description	Voltage	Order code
	LED Indicator	24 V AC/DC	P8V-CR26C
		48 V AC/DC	P8V-CR26D
		115 V 50 Hz 120 V 60 Hz	P8V-CR24F
		230 V~50 Hz 240 V~60 Hz	P8V-CR24J

Note: The Interface modules have been re-designed to accept the 9,4mm spacing and the 8mm spacing versions of the suppressor and LED indicators listed above. If you are purchasing a suppressor for maintenance on an Interface module purchased before June 2004, then refer to Interface Technical leaflet supplied with this catalogue.

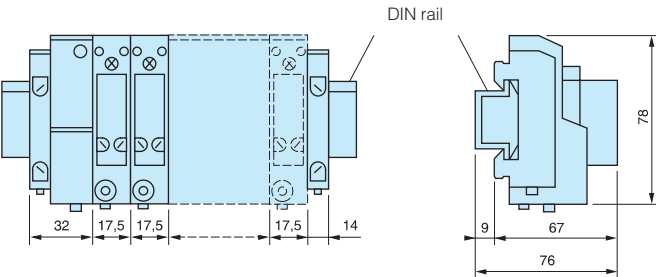
Pressure switches

		Order code
	1 changeover contact 5 A/250 V Pneu. Ø 4 mm	Fixed operating threshold < 1,3 bar PS1-P1081
	1 changeover contact 5 A/250 V Pneu. Ø 4 mm	Adjustable operating threshold 2 to 5 bar PS1-P1091

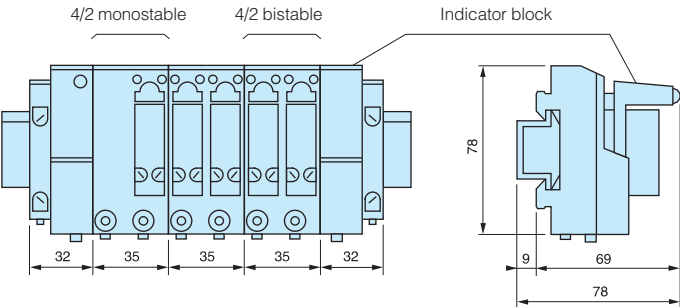
Note: The Interface modules have been re-designed to accept the previous 9,4mm spacing solenoids and the new 8mm spacing solenoids listed above. If you are purchasing a solenoid for maintenance on an Interface module purchased before June 2004, then refer to Interface Technical leaflet supplied with this catalogue.

Dimensions, PS1 valve Series

Electropneumatic interface modules 3/2
PS1-E21102• with PS1-E101 head and tail units



Electropneumatic interface modules 4/2
PS1-E28• and PS1-E29 with PS1-E102 head and tail units



Stacking high flow valves with air pilot or solenoid actuation. Lightweight plastic bodies feature push-in or threaded connections. Stacking valves feature modular inlet and exhaust facility.

- High flow, compact size
- Push-in or threaded connection
- DIN rail or block mounting
- Light weight construction



Operating information

Working pressure;	
Pneumatically operated:	2-10 bar
Electrically operated, bistable:	2-10 bar
Electrically operated, monostable:	3-10 bar
Working temperature	-15 °C to +60 °C
	PVL-A PVL-B PVL-C
Flow (Qmax):	270 l/min 900 l/min 1800 l/min
Flow Qn:	170 l/min 540 l/min 1100 l/min
Flow measured with valve stacked in island.	

Pneumatically actuated 5/2 valves - Size M5

Symbol	Connect	Order code
	Ø4 mm	PVL-A122104
	M5	PVL-A122115
	Ø4 mm	PVL-A121104
	M5	PVL-A121115

Electrically/Pneumatically actuated 5/2 valves size G1/8*

Symbol	Connect	Order code
	Ø6 mm	PVL-B122606
	G1/8	PVL-B122618
	Ø6 mm	PVL-B121606
	G1/8	PVL-B121618

Electrically/Pneumatically actuated 5/2 valves size G1/4*

Symbol	Connect	Order code
	Ø8 mm	PVL-C122608
	G1/4	PVL-C122619
	Ø8 mm	PVL-C121608
	G1/4	PVL-C121619

* For solenoids and pilot connectors, see next page

Electrically/Pneumatically actuated 2 x 3/2 valves

Symbol	Connect	Order code
	Ø6 mm	PVL-B125606

Electrically actuated 5/2 valves - Size M5

Complete with 24V DC miniature solenoid and connector with 2m cable.

Symbol	Connect	Order code
	Ø4 mm	PVL-A122304B40
	M5	PVL-A122315B40
	Ø4 mm	PVL-A121304B50
	M5	PVL-A121315B50

Electrically/Pneumatically actuated 5/3 valves size G1/8*

Symbol	Connect	Order code
	Ø6 mm	PVL-B127606
	G1/8	PVL-B127618
	Ø6 mm	PVL-B128606
	G1/8	PVL-B128618

Electrically/Pneumatically actuated 5/3 valves size G1/4*

Symbol	Connect	Order code
	Ø8 mm	PVL-C127608
	G1/4	PVL-C127619
	Ø8 mm	PVL-C128608
	G1/4	PVL-C128619

* For solenoids and pilot connectors, see next page

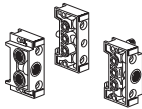
Wiring and connecting accessories for PVL-A

	Order code
Connector only (sold in pack of 10 pcs)	PES-D10
Connector with 5 m cable	PES-D101

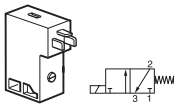
Indicates stocked product.

Head and tail sets

For stacking power valves 5/2, sizes M5, G1/8 and G1/4

	Type of mounting	Description	Valve size	Port size	Order code
	DIN rail mounting	Single air supply head and tail set	M5 1/8" 1/4"	G1/8 G1/4 G3/8	PVL-A1718 PVL-B1719 PVL-C1713
		Dual air supply head and tail set	M5 1/8" 1/4"	G1/4 G1/4 G3/8	PVL-A1728 PVL-B1729 PVL-C1723
	Surface mounting	Single air supply head and tail set	1/8" 1/4"	G1/8 G1/4	PVL-B1818 PVL-C1819
		Double air supply head and tail set	1/8" 1/4"	G1/8 G1/4	PVL-B1828 PVL-C1829

Solenoids 15mm NC Standard flow DIN 1.2W/1.6VA

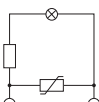
	Voltage	Order code Override flush non locking	Order code Override flush locking
	24 VDC	P2E-KV32C1	P2E-KV32C2
	48 VDC	P2E-KV32D1	
	24 VAC 50Hz	P2E-KV31C1	P2E-KV31C2
	48 VAC 50/60Hz	P2E-KV34D1	P2E-KV34D2
	115 VAC 50Hz/ 120 VAC 60Hz	P2E-KV31F1	P2E-KV31F2
	230 VAC 50Hz/ 240 VAC 60Hz	P2E-KV31J1	P2E-KV31J2

Cable plugs 15 mm (8 mm pin spacing) IP 65

Description	Order code
 Large headed screw for inaccessible or recess position Standard to be wired universal To be wired LED+protection 24 VDC	P8C-C
	P8C-C26C
 With standard screw Standard to be wired universal To be wired LED+protection 24 VDC	P8C-D
	P8C-D26C
 With cable and standard screw Standard with 2 m cable Standard with 5 m cable LED+protection 24 VAC/DC, 2 m LED+protection 24 VAC/DC, 5 m	P8L-C2
	P8L-C5
	P8L-C226C
	P8L-C526C

Suppressor and LED indicators

For mounting between the solenoid valve and the cable plug.

Symbol	Description	Voltage	Order code
	LED Indicator	24 V AC/DC	P8V-CR26C
		48 V AC/DC	P8V-CR26D
		115 V 50 Hz 120 V 60 Hz	P8V-CR24F
		230 V~50 Hz 240 V~60 Hz	P8V-CR24J
			

Air Pilot Connectors for PVL - B and C

Mounting	Type of connection	Order code
	Mounts on the same interface as the 1 W / 1,2 VA solenoid actuator	PVA-P111
	Push-in Ø4 mm Threaded M5	PVA-P115

Components for stacking two sizes of valve

	Type of mounting	Description	Valve size	Order code
Components for stacking 2 sizes: "transfer/take-off" module and corresponding head and tail set 	DIN rail	Kit for stacking power valves : - one "transfer/take-off" module - Head and tail set with one in each size.	1/8" and 1/4"	PVU-LCB119
Components for inlet/exhaust common gallery sealing 		Kit for sealing the commons: - 3 common blanking plugs - 2 drilled and threaded rods - 2 screws for extended tie rods	M5 1/8" 1/4"	PVL-A1901 PVL-B1901 PVL-C1901

 Indicates stocked product.

Dimensions, PVL valve Series

All dimensions in mm unless otherwise stated

M5 stacking power valves with pneumatic or electrical piloting

Electrical piloting with 0,9 W solenoid actuator

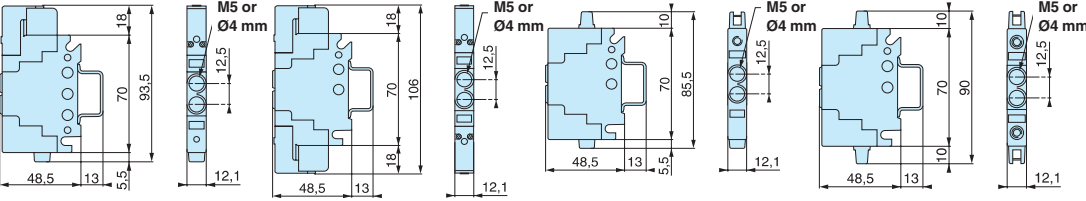
Monostable PVL-A1213**

Bistable PVL-A1223*

Pneumatic piloting

Monostable PVL-A1211**

Bistable PVL-A1221**

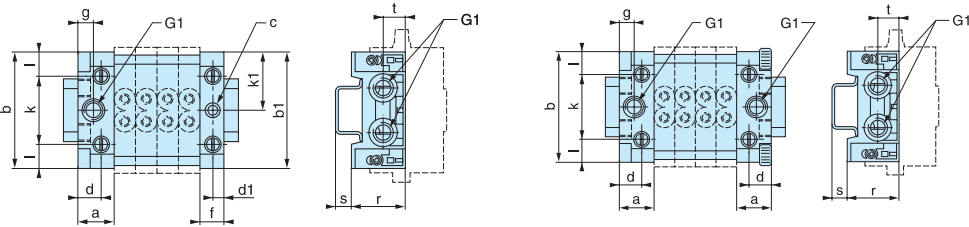


Head and tail sets

- Mounting on DIN rail

Single air supply PVL-A1718

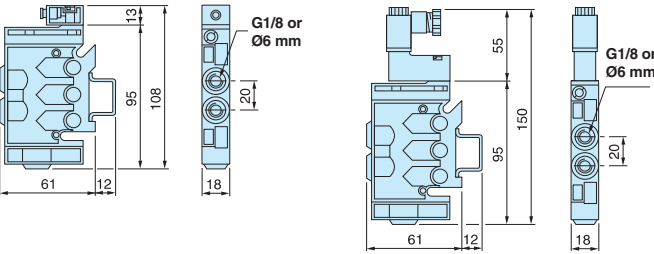
Dual air supply PVL-A1728



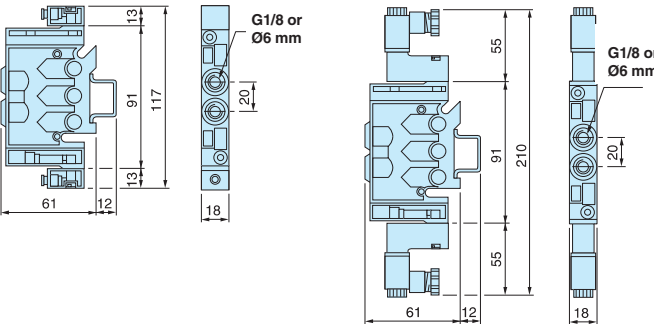
Thread size	a	b	b1	c	d	d1	f	g	G1	k	k1	l	r	s	t
M5	20	65	65	4,2	12,9	5,9	13	8,5	1/8"	38	38	13,5	30	8,8	12,5

Stacking power valves 1/8" with pneumatic or electrical piloting

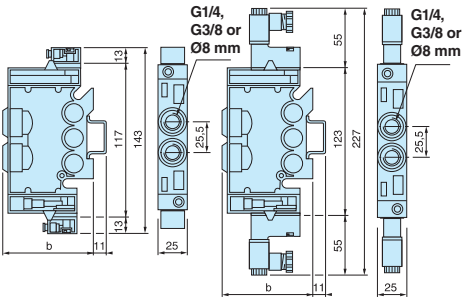
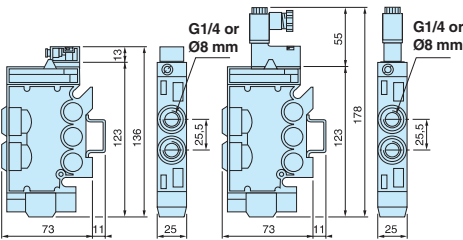
Monostable PVL-B1216**, PVL-B1236**



Bistable PVL-B1226**



Stacking power valves 1/4" with pneumatic or electrical control
With 1 W solenoid actuator and suitable pneumatic connector
Monostable PVL-C1216**, PVL-C1236**

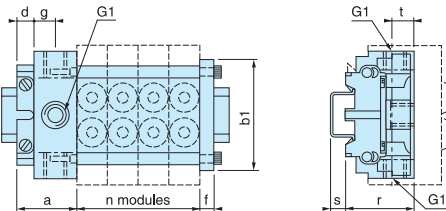


	G1/4	G3/8
b	73	77

Head and tail sets

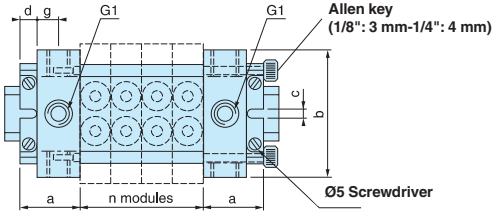
Single air supply

PVL-B1719, PVL-C1713, mounting on DIN rail



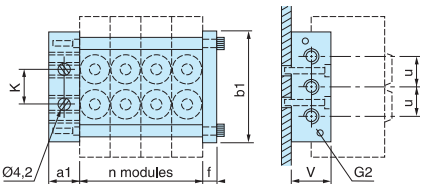
Dual air supply

PVL-B1729, PVL-C1723, mounting on DIN rail



Single air supply

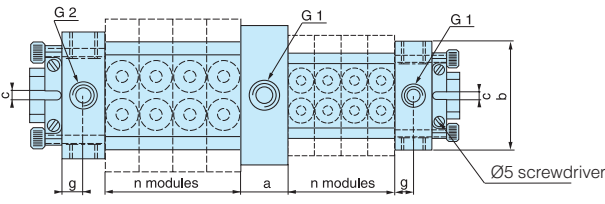
PVL-B1818, PVL-C1819, "stack mounting"



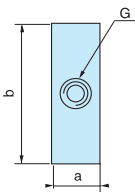
	a	a1	b	b1	c	d	f	g	G1	G2	k	r	s	t	u	v
1/8"	38	16	83	70	4,2	10	8	12	1/4"	1/8"	17,3	44	9	11	16	25
1/4"	38	20	108	100	4,2	10	8	12	3/8"	1/4"	63,5	55	9	13	20	30

"Transfer / take-off" module, intermediate supply module

For combination of sizes 1/4" - 1/8" - PVU-LCB119



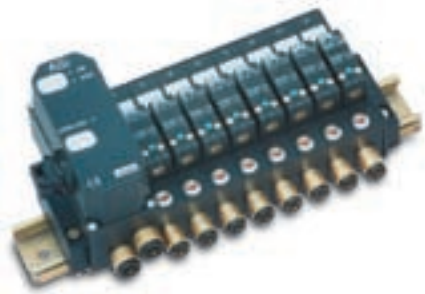
PVUL-BB118 - PVU-LCC119



	a	b	G
1/8"	18	75	1/8
1/4"	25	100	1/4

Miniature solenoid valves with modular pneumatic and electrical inputs. Lightweight plastic bodies with DIN rail manifold mounting facility. Ideal for cabinet installations.

- 3/2 and 4/2 module poppet valve
- Push-in connection
- Electrical connection by Cable gland, Sub D25 or industrial connector
- Visual indication by LED with built in surge suppression
- Modular system



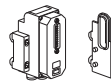
Operating information

Working Pressure	3 to 8 bar
Working temperature	-15 °C to +60 °C (Bus modules: 0 °C to 40 °C)
Flow, Qmax = 200 l/min	Qn = 100 l/min
Standard voltage	24 VDC
Protection level	IP65
For technical information see CD	

Valve slices including solenoids

Type	Actuator	Return	Push-in fittings mm	LED indicator and noise suppressor	Voltage	Order code
		Spring	Ø4	Yes	24 VDC	P2S-EW344ES2CR
			Ø6	Yes	24 VDC	P2S-EW346ES2CR
		Spring	Ø4	Yes	24 VDC	P2S-EW144ES2CR
			Ø6	Yes	24 VDC	P2S-EW146ES2CR
		Spring	Ø4	Yes	24 VDC	P2S-EW444ES2CR
			Ø6	Yes	24 VDC	P2S-EW446ES2CR
		Solenoid	Ø4	Yes	24 VDC	P2S-EW444EE2CQ
			Ø6	Yes	24 VDC	P2S-EW446EE2CQ

Head and tail sets, intermediate accessories

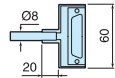
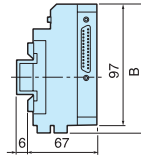
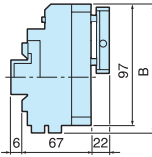
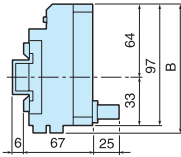
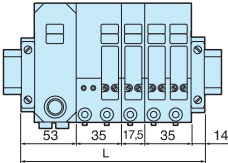
	Electrical connection	Push-in fitting, mm	Order code
	Sub D25 on the top	Ø8	P2S-EA148D25AT
	Intermediate air supply module	Ø6	P2S-EA246

For connecting leads refer to page 158.

 Indicates stocked product.

Dimensions, Valvetronic Interface 2000

With Cable gland or SubD25 Connection Island

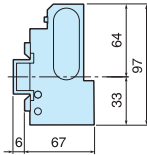


$L = 67 + (m \times 17,5) + (n \times 35)$
m = number of 3/2 valves
n = number of 4/2 valves

Fitting Ø6
Fitting Ø8

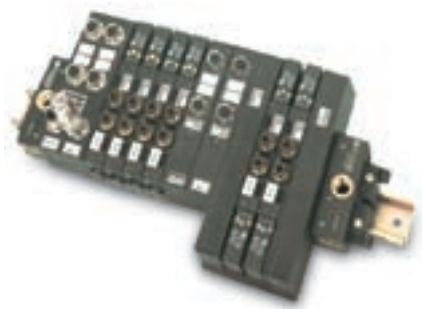
B=105 mm
B=109 mm

Intermediary air supply



Stacking high flow valves with air pilot or solenoid actuation. Lightweight plastic bodies feature push-in or threaded connections. Modular pneumatic inlet, exhaust and modular electrical connections.

- High flow, compact, light weight
- Push-in or threaded pneumatic connections
- 2 x 3/2 - 5/2 - 5/3 functions
- Electrical head connection by Sub D 25 or Industrial Cylindrical Connector.
- Bus protocols: Interbus S, Profibus DP, DeviceNet and ASI
- Modular system



Flow characteristics (Qmax)

	Type 2 x 3/2 G1/8 threaded	Push in Ø6 mm
Flow Qmax	750 l/min	600 l/min
Flow Qn	400 l/min	300 l/min
	Type 5/2 G1/8 threaded	Push in Ø6 mm
Flow Qmax	900 l/min	775 l/min
Flow Qn	540 l/min	420 l/min
	Type 5/3 closed centre G1/8 threaded	Push in Ø6 mm
Flow Qmax	650 l/min	500 l/min
Flow Qn	370 l/min	280 l/min
	Type 5/3 vented centre G1/8 threaded	Push in Ø6 mm
Flow Qmax	900 l/min	775 l/min
Flow Qn	540 l/min	420 l/min

Operating information

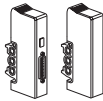
Working Pressure	2 to 10 bar (3 to 10 bar for Monostable)
Working temperature	-15 °C to +60 °C (Bus modules: 0°C to 50°C)
Protection level	IP65
Input modules	
Protection level	IP65
Voltage and type of output	PNP 24V DC
Normal current	100 mA
Maxi. available current island	1 A for all the inputs
Output modules	
Protection level	IP65
Type and output voltage	PNP 24V DC
Normal current	100 mA
Maxi. available current island	1 A for all the outputs

Valve slices including solenoids

Symbol	Actuator	Return	Pneumatic connection	Voltage	Order code
	Solenoid double 3/2 NC	Internal air pilot	Ø6 mm	24 V DC	PVL-B10560652B
			G1/8	24 V DC	PVL-B10561852B
	Solenoid 5/2	Solenoid	Ø6 mm	24 V DC	PVL-B10260602B
			G1/8	24 V DC	PVL-B10261802B
	Solenoid 5/2	Spring	Ø6 mm	24 V DC	PVL-B10160652B
			G1/8	24 V DC	PVL-B10161852B
	Solenoid 5/3 closed centre	Solenoid self centring	Ø6 mm	24 V DC	PVL-B10760602B
			G1/8	24 V DC	PVL-B10761802
	Solenoid 5/3 vented centre	Solenoid self centring	Ø6 mm	24 V DC	PVL-B10860602B

Indicates stocked product.

Electrical head and tail sets

	Valves configuration	Type of connector	Order code
	Single solenoid	Sub-D25	PVL-B191125
	Double solenoid	Sub-D25	PVL-B192125
	Double solenoid	Cylindrical 35-pins	PVL-B192235
	Double solenoid then Single solenoid	Sub-D25	PVL-B194125
	Single solenoid then Double solenoid	Sub-D25	PVL-B193125
Transfer module	Double solenoid then Single solenoid		PVL-B1940
	Single solenoid then Double solenoid		PVL-B1930
35 pin round cable 5meters			P8L-MC35A5

Pneumatic head and tail sets

Type of	Description mounting	Port size	Order code
	Single supply head and tail set	G1/4	PVL-B1719
	Dual air supply head and tail set	G1/4	PVL-B1729
	Single air supply head and tail set	G1/8	PVL-B1818
	Dual air supply head and tail set	G1/8	PVL-B1828
	Pressure isolating disc. (Sold in lots of 10)		PVL-B1902

Input Module

Type	Connection	Order code
PVL-B Single solenoid	2 Inputs	PVL-B1E1302
PVL-B Double solenoid	4 Inputs	PVL-B1E2304

Output Module

Type	Connection	Order code
PVL-B Single solenoid	2 Outputs	PVL-B1S1302
PVL-B Double solenoid	4 Outputs	PVL-B1S2304

Head and tail sets

	Description	Type	Connection	Order code
	Pneumatic head and tail set with closing plates (and transfer module)	Double solenoid then Single solenoid	G1/4	PVL-B194729
		Double solenoid	G1/4	PVL-B192729
	Connector	M23 female 6 pins power	Supply	P8C-MC06B
		M23 female 12 pins	Profibus	P8C-MC12BP
	Plug	M23, IP 65	Bus Out	P8C-PB1
	Installation Diskett	Profibus and DeviceNet		P8C-PDISK

Connecting leads for Head module with Sub D 25

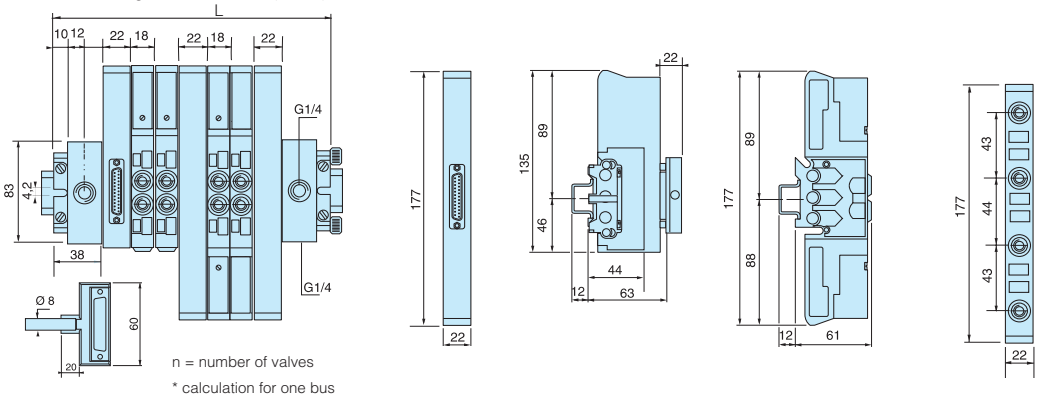
Type	Connection to valve island	Connection to PLC	Length m	Order code
	Leads for head module with Sub D 25 female	20 coloured wires AWG 24	5,0	P8L-MD25A5B
			9,9	P8L-MD25A9B
			15,0	P8L-MD25ACB

 Indicates stocked product.

Dimensions, Valvetronic PVL-B10

Uniform configuration $L = 120 + (n \times 18)^*$

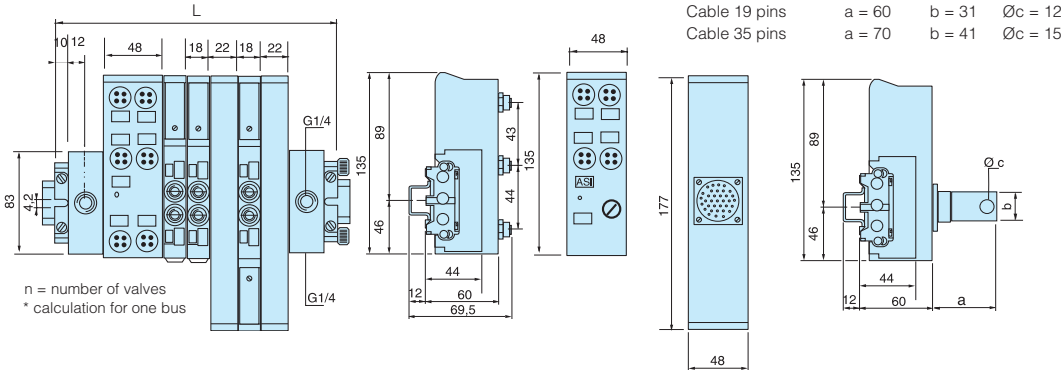
Mixed configuration $L = 142 + (n \times 18)^*$



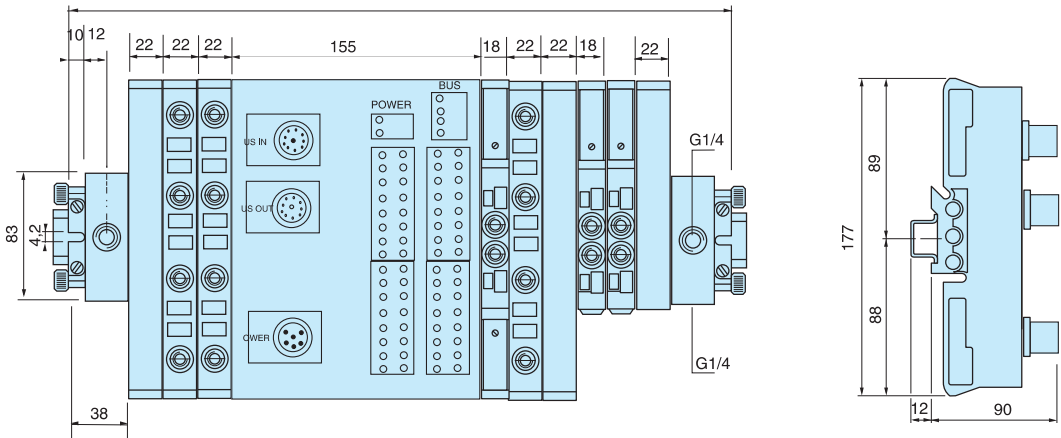
ASI Bus

Uniform configuration $L = 146 + (n \times 18)^*$

Mixed configuration $L = 168 + (n \times 18)^*$



DeviceNet, Profibus DP, Interbus S, FIPIO



Stacking high flow valves with air pilot or solenoid actuation. Lightweight plastic bodies feature push-in or threaded connections. Modular pneumatic inlet, exhaust and modular electrical connections.

- High flow, compact, light weight
- Push-in or threaded pneumatic outlets
- Bus protocols: Interbus S, Profibus DP, DeviceNet and ASI
- Electrical head connection by Cable gland, Sub D 25 or cylindrical connection
- Modular system



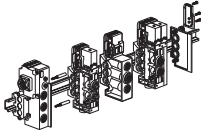
Flow characteristics (Qmax)			Operating information	
Flow Qmax Flow Qn	Type 2 x 3/2 G1/4 threaded	Push in Ø8 mm	Working Pressure	2 to 10 bar (3 to 10 bar for Monostable)
	950 l/min 830 l/min	900 l/min 470 l/min	Working temperature	-15 °C to +60 °C (Bus modules: 0°C to 50°C)
Flow Qmax Flow Qn	Type 5/2 G1/4 threaded	Push in Ø8 mm	Protection level	IP65
	1850 l/min 1100 l/min	1400 l/min 820 l/min		
Flow Qmax Flow Qn	Type 5/3 closed centre G1/4 threaded	Push in Ø8 mm		
	1300 l/min 790 l/min	1170 l/min 640 l/min		
Flow Qmax Flow Qn	Type 5/3 vented centre G1/4 threaded	Push in Ø8 mm		
	1850 l/min 1100 l/min	1400 l/min 830 l/min		

Valve slices including solenoids

Symbol	Actuator	Return	Pneumatic connection	Voltage	Order code
	Solenoid double 3/2 NC	Internal air pilot	G1/4	24 V DC	PVL-C10561952B
	Solenoid 5/2	Solenoid	G1/4	24 V DC	PVL-C10261902B
	Solenoid 5/2	Spring	G1/4	24 V DC	PVL-C10161952B
	Solenoid 5/3 closed centre	Solenoid self centring	G1/4	24 V DC	PVL-C10761902B
	Solenoid 5/3 vented centre	Solenoid self centring	G1/4	24 V DC	PVL-C10861902B

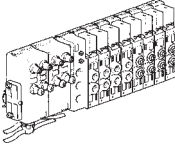
Indicates stocked product.

Head and tail Electrical pneumatic modules

	Description	Auxiliary Pressure px	Electrical Connection	Pneumatic Connection	Order code
	Head modules + tail closing plate	Without px	Cable gland	G3/8	PVL-C1713H20A
			Sub D 25	G3/8	PVL-C1713D25A
		With px	Cable gland	G3/8	PVL-C2713H20A
	Tail air supply module			G3/8	PVU-LC213
	Intermediate air supply module			G3/8	PVU-LC213E
	Pressure isolating discs				PVL-C1902 Sold in lots of 10

For connecting leads see page 162.

ASI Bus Modules - Inputs and Outputs version

	Description	Connection	Order code
	Head master module with tail closing plate	M12 ASI/24V	PVL-BA1BA44
		Vampire ASI/24V	PVL-BA1BA44V
	Intermediate module	M12 ASI/24V	PVL-BA5BA44
	Spare vampire cover clip		P8B-AVMP2 Sold in lots of 5
	Connection LEAD to address terminal		P8B-AJACK

Combination Kits PVL-B10/PVL-C10 or PVL-C10/ASI bus modules

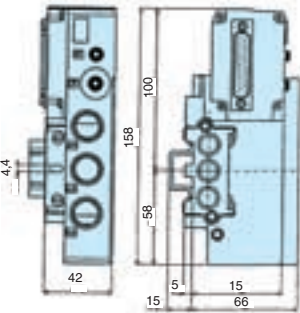
Type of combination module		Connection	Order code
Combination PVL-B10/PVL-C10	Without px version*	G1/4 and G3/8	PVL-C1713B19
	With px version (Ø4mm)*	G1/4 and G3/8	PVL-C2713B19
Combination bus ASI/PVL-C10	Without px version*	G3/8	PVL-C1713B
	With px version (Ø4mm)*	G3/8	PVL-C2713B

*px = auxiliary air supply for solenoids, separately from the main valves air supply.

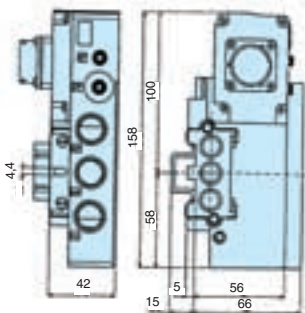
 Indicates stocked product.

Dimensions, Valvetronic PVL-C10

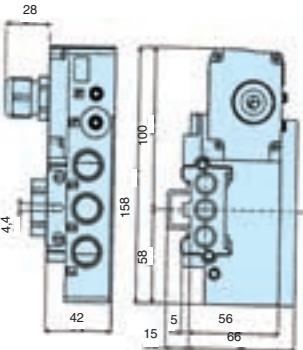
Head modules : SubD25 connector



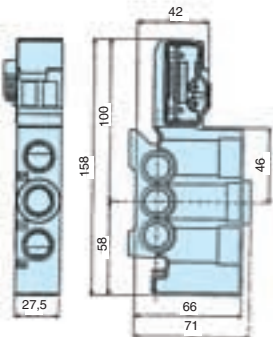
Cylindrical connector



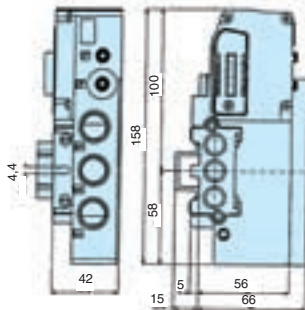
Cable gland



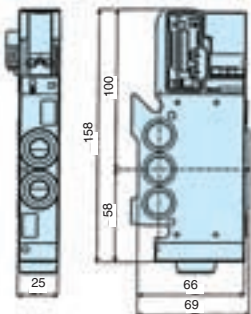
Intermediary air supply module



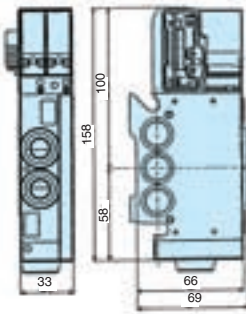
Transfer Module from PVL-B10/PVL-C10 and Head
ASI bus / Air feed module PVL-C10



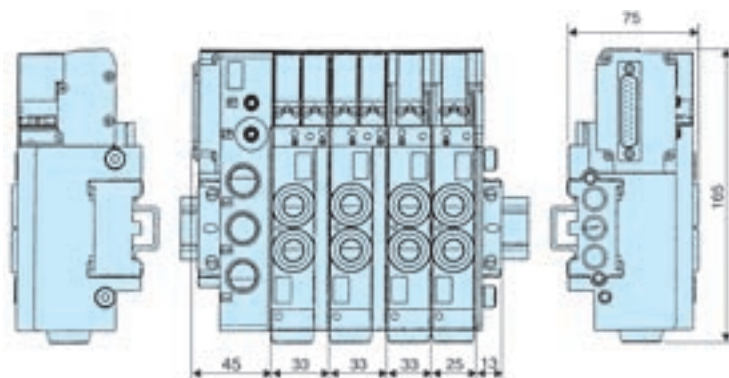
Valve 5/2 monostable



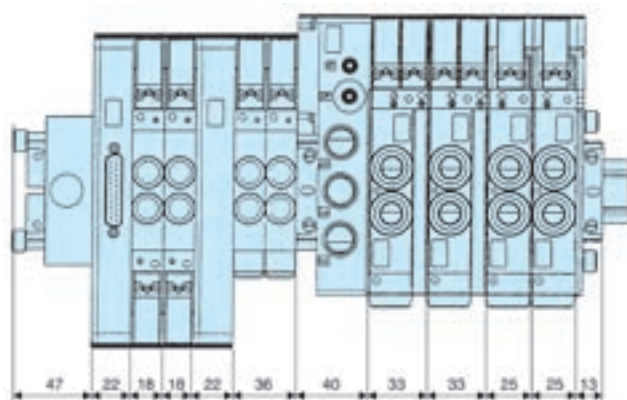
Valve 5/2 bistable - 2x3/2 - 5/3



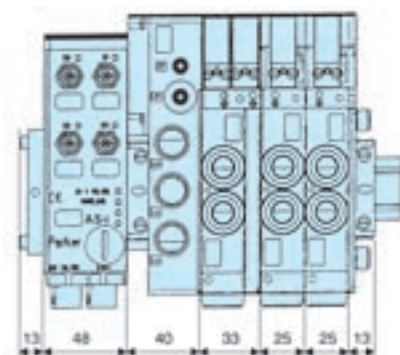
Dimensions, Valvetronic PVL-C10



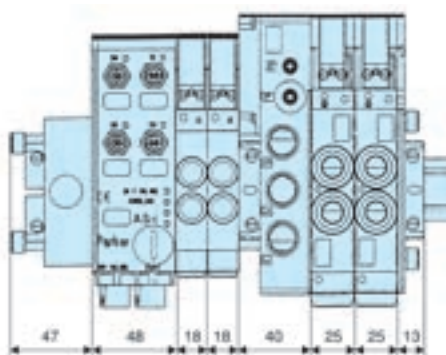
Association PVL-B10 G1/8 and PVL-C10 G1/4



Association ASI and PVL-C10



Association ASI and PVL-B10 and PVL-C10



ISO 15407

Size 02 / 01

Cylinders from Ø 10 to 100

ISO 15407-1	Individual Connection	DIN C	Isomax 	
		M12	ISYS ISO 	
		Remote pilot	Isomax 	ISYS ISO 
		Subbase, Manifolds		
		Flow Control, Regulator		
ISO 15407-2	Plug-in	Plug-in	ISYS ISO 	
		Subbase, Manifolds		

ISO 5599

Size 1 / 2 / 3

Cylinders from Ø 63 to 200

ISO 5599-1	Individual Connection	DIN A, Industrial	Isomax 	ISYS ISO 
		M12, M23	Isomax 	ISYS ISO 
		Remote pilot	Isomax 	ISYS ISO 
		Subbase, Manifolds		
		Flow Control, Regulator		
ISO 5599-2	Plug-in	Plug-in	ISYS ISO 	
		Subbase, Manifolds		

Ceramic slide valves for maximum operational life.
Solenoid or air pilot actuation. Vacuum to 10 bar
general applications.

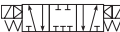
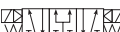


- Size 01 and 02 (26 and 18 mm)
- Ceramic technology for long life operation
- From vacuum up to 10 bar applications
- Internal or external pilot supply with same valves
- Capture solenoid exhaust

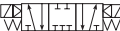
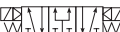
Operation information

Working pressure :	-0,9 to 10 bar
Working temperature :	-10 to +60°C
	DX02 DX01
Flow (Qmax.) :	630 l/min 1000 l/min
Flow (Qn) :	385 l/min 585 l/min

Solenoid operated ISO valve fitted with 15 mm solenoid 24 VDC

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	02 - 18mm	Electrical signal	Spring	4,0/2,0	15/25	0.13	DX02-621-951M
	01 - 26mm	Electrical signal	Spring	4,3/2,3	25/35	0.17	DX01-621-951M
	02 - 18mm	Electrical signal	Differential	3,9/1,6	15/30	0.13	DX02-651-951M
	01 - 26mm	Electrical signal	Differential	3,8/1,7	20/40	0.17	DX01-651-951M
	02 - 18mm	Electrical signal	Electrical signal	1,3/1,3	12/12	0.17	DX02-606-951M
	01 - 26mm	Electrical signal	Electrical signal	1,0/1,0	15/15	0.21	DX01-606-951M
5/3 Valves							
	02 - 18mm	Electrical signal	Electrical signal	3,3	20/60	0.17	DX02-616-951M
	01 - 26mm	Closed center	Self centering	2,9	20/60	0.21	DX01-616-951M
	02 - 18mm	Electrical signal	Electrical signal	3,3	20/60	0.17	DX02-611-951M
	01 - 26mm	Vented center	Self centering	3	20/60	0.21	DX01-611-951M
	02 - 18mm	Electrical signal	Electrical signal	3,3	20/60	0.17	DX02-613-951M
	01 - 26mm	Press. center	Self centering	3	20/60	0.21	DX01-613-951M

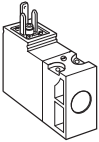
Solenoid operated ISO valve fitted with adaptor to accept 15 mm solenoid

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	02 - 18mm	Electrical signal	Spring	4,0/2,0	15/25	0.9	DX02-621-60
	01 - 26mm	Electrical signal	Spring	4,3/2,3	25/35	0.13	DX01-621-60
	02 - 18mm	Electrical signal	Differential	3,9/1,6	15/30	0.9	DX02-651-60
	01 - 26mm	Electrical signal	Differential	3,8/1,7	20/40	0.13	DX01-651-60
	02 - 18mm	Electrical signal	Electrical signal	1,3/1,3	12/12	0.9	DX02-606-60
	01 - 26mm	Electrical signal	Electrical signal	1,0/1,0	15/15	0.13	DX01-606-60
5/3 Valves							
	02 - 18mm	Electrical signal	Electrical signal	3,3	20/60	0.9	DX02-616-60
	01 - 26mm	Closed center	Self centering	2,9	20/60	0.13	DX01-616-60
	02 - 18mm	Electrical signal	Electrical signal	3,3	20/60	0.9	DX02-611-60
	01 - 26mm	Vented center	Self centering	3	20/60	0.13	DX01-611-60
	02 - 18mm	Electrical signal	Electrical signal	3,3	20/60	0.9	DX02-613-60
	01 - 26mm	Press. center	Self centering	3	20/60	0.13	DX01-613-60

Pneumatic operated ISO valve

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	02 - 18mm	Air signal	Spring	4,0/2,0	15/25	0.9	DX02-421-60
	01 - 26mm	Air signal	Spring	4,3/2,3	25/35	0.13	DX01-421-60
	02 - 18mm	Air signal	Differential	3,9/1,6	15/30	0.9	DX02-451-60
	01 - 26mm	Air signal	Differential	3,8/1,7	20/40	0.13	DX01-451-60
	02 - 18mm	Air signal	Air signal	1,3/1,3	12/12	0.9	DX02-406-60
	01 - 26mm	Air signal	Air signal	1,0/1,0	14/14	0.13	DX01-406-60
5/3 Valves							
	02 - 18mm	Air signal	Air signal	3,3	20/50	0.9	DX02-416-60
	01 - 26mm	Closed center	Self centering	2,9	20/50	0.13	DX01-416-60
	02 - 18mm	Air signal	Air signal	3,3	20/50	0.9	DX02-411-60
	01 - 26mm	Vented center	Self centering	3	20/50	0.13	DX01-411-60
	02 - 18mm	Air signal	Air signal	3,3	20/50	0.9	DX02-413-60
	01 - 26mm	Press. center	Self centering	3	20/50	0.13	DX01-413-60

Solenoids 15 mm NC standard flow DIN 1,2 W/1,6 VA

	Voltage	Order code Override flush non locking	Order code Override flush locking
	24 V DC	P2E-KV32C1	P2E-KV32C2
	48 V DC		P2E-KV32D1
	24 V AC 50 Hz	P2E-KV31C1	P2E-KV31C2
	48 V AC 50/60 Hz	P2E-KV34D1	P2E-KV34D2
	115 V AC 50 Hz / 120 V AC 60 Hz	P2E-KV31F1	P2E-KV31F2
	230 V AC 50 Hz / 240 V AC 60 Hz	P2E-KV31J1	P2E-KV31J2

Connectors see page 186.

 Indicates stocked product.

Ceramic slide valves for maximum operational life.
Solenoid or air pilot operated with a wide choice
of bases and manifolds. Vacuum to 12 bar
general applications.

- Size1, 2 and 3
- Ceramic technology for long life operation
- From vacuum up to 12 bar applications
- Internal or external pilot supply with same valves
- M12 on each coil
- Common M12



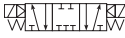
Operation information

Working pressure :	-0,9 to 12 bar		
Working temperature :	-10 to +60°C		
	DX1	DX2	DX3
Flow (Qmax.) :	1680 l/min	3640 l/min	6420 l/min
Flow (Qn.) :	1150 l/min	2330 l/min	4050 l/min
ATEX approval:	CE Ex II 2 GD c 85°C		
For ATEX specific products contact Sales Office			

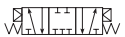
Solenoid operated ISO valve fitted with CNOMO solenoid(s) 24 VDC

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	1 - 43mm	Electrical signal	Spring	3,9/2,5	40/55	0.5	DX1-621-BL49
	2 - 56mm	Electrical signal	Spring	3,6/2,4	60/105	0.75	DX2-621-BL49
	3 - 71mm	Electrical signal	Spring	3,6/2,3	85/160	1.25	DX3-621-BL49
	1 - 43mm	Electrical signal	Differential	3,3/1,9	30/70	0.5	DX1-651-BL49
	2 - 56mm	Electrical signal	Differential	3,3/2,0	55/110	0.75	DX2-651-BL49
	3 - 71mm	Electrical signal	Differential	3,3/1,9	80/180	1.25	DX3-651-BL49
	1 - 43mm	Electrical signal	Electrical signal	1,0/1,0	25/25	0.65	DX1-606-BL49
	2 - 56mm	Electrical signal	Electrical signal	1,0/1,0	30/30	0.9	DX2-606-BL49
	3 - 71mm	Electrical signal	Electrical signal	1,0/1,0	40/40	1.4	DX3-606-BL49
5/3 Valves							
	1 - 43mm	Electrical signal	Electrical signal	2,6	30/95	0.65	DX1-616-BL49
	2 - 56mm	Closed center	Self centering	2,1	40/190	0.9	DX2-616-BL49
	3 - 71mm			2,1	55/330	1.4	DX3-616-BL49
	1 - 43mm	Electrical signal	Electrical signal	2,8	25/70	0.65	DX1-611-BL49
	2 - 56mm	Vented center	Self centering	2,2	40/140	0.9	DX2-611-BL49
	3 - 71mm			2,1	60/270	1.4	DX3-611-BL49
	1 - 43mm	Electrical signal	Electrical signal	2,4	25/65	0.65	DX1-613-BL49
	2 - 56mm	Press. center	Self centering	2,1	40/150	0.9	DX2-613-BL49

Solenoid operated ISO valve fitted with CNOMO operator without coil

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	1 - 43mm	Electrical signal	Spring	3,9/2,5	40/55	0.4	DX1-621-BN
	2 - 56mm	Electrical signal	Spring	3,6/2,4	60/105	0.65	DX2-621-BN
	3 - 71mm	Electrical signal	Spring	3,6/2,3	85/160	1.15	DX3-621-BN
	1 - 43mm	Electrical signal	Differential	3,3/1,9	30/70	0.4	DX1-651-BN
	2 - 56mm	Electrical signal	Differential	3,3/2,0	55/110	0.65	DX2-651-BN
	3 - 71mm	Electrical signal	Differential	3,3/1,9	80/180	1.15	DX3-651-BN
	1 - 43mm	Electrical signal	Electrical signal	1,0/1,0	25/25	0.55	DX1-606-BN
	2 - 56mm	Electrical signal	Electrical signal	1,0/1,0	30/30	0.8	DX2-606-BN
	3 - 71mm	Electrical signal	Electrical signal	1,0/1,0	40/40	1.3	DX3-606-BN
5/3 Valves							
	1 - 43mm	Electrical signal	Electrical signal	2,6	30/95	0.55	DX1-616-BN
	2 - 56mm	Closed center	Self centering	2,1	40/190	0.8	DX2-616-BN
	3 - 71mm			2,1	55/330	1.3	DX3-616-BN
	1 - 43mm	Electrical signal	Electrical signal	2,8	25/70	0.55	DX1-611-BN
	2 - 56mm	Vented center	Self centering	2,2	40/140	0.8	DX2-611-BN
	3 - 71mm			2,1	60/270	1.3	DX3-611-BN
	1 - 43mm	Electrical signal	Electrical signal	2,4	25/65	0.55	DX1-613-BN
	2 - 56mm	Press. center	Self centering	2,1	40/150	0.8	DX2-613-BN

Pneumatic operated ISO valve without valve spool override

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	1 - 43mm	Air signal	Spring	3,9/2,5	30/45	0.35	DX1-421-60
	2 - 56mm	Air signal	Spring	3,6/2,4	50/95	0.6	DX2-421-60
	3 - 71mm	Air signal	Spring	3,6/2,3	80/160	1.1	DX3-421-60
	1 - 43mm	Air signal	Differential	3,3/1,9	25/60	0.35	DX1-451-60
	2 - 56mm	Air signal	Differential	3,3/2,0	45/100	0.6	DX2-451-60
	3 - 71mm	Air signal	Differential	3,3/1,9	70/170	1.1	DX3-451-60
	1 - 43mm	Air signal	Air signal	1,0/1,0	20/20	0.35	DX1-406-60
	2 - 56mm	Air signal	Air signal	1,0/1,0	25/25	0.6	DX2-406-60
	3 - 71mm	Air signal	Air signal	1,0/1,0	35/35	1.1	DX3-406-60
5/3 Valves							
	1 - 43mm	Air signal	Air signal	2,6	20/80	0.35	DX1-416-60
	2 - 56mm	Closed center	Self centering	2,1	30/170	0.6	DX2-416-60
	3 - 71mm			2,1	45/330	1.1	DX3-416-60
	1 - 43mm	Air signal	Air signal	2,8	20/65	0.35	DX1-411-60
	2 - 56mm	Vented center	Self centering	2,2	30/140	0.6	DX2-411-60
	3 - 71mm			2,1	50/270	1.1	DX3-411-60
	1 - 43mm	Air signal	Air signal	2,4	20/60	0.35	DX1-413-60
	2 - 56mm	Press. center	Self centering	2,1	25/140	0.6	DX2-413-60

Solenoid operated ISO valve, CNOMO, 24 VDC with M12 coil

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	1 - 43mm	Electrical signal	Spring	3,9/2,5	40/55	0.5	DX1-621-B619
	2 - 56mm	Electrical signal	Spring	3,6/2,4	60/105	0.75	DX2-621-B619
	3 - 71mm	Electrical signal	Spring	3,6/2,3	85/160	1.25	DX3-621-B619
	1 - 43mm	Electrical signal	Differential	3,3/1,9	30/70	0.5	DX1-651-B619
	2 - 56mm	Electrical signal	Differential	3,3/2,0	55/110	0.75	DX2-651-B619
	3 - 71mm	Electrical signal	Differential	3,3/1,9	80/180	1.25	DX3-651-B619
	1 - 43mm	Electrical signal	Electrical signal	1,0/1,0	25/25	0.65	DX1-606-B619
	2 - 56mm	Electrical signal	Electrical signal	1,0/1,0	30/30	0.9	DX2-606-B619
	3 - 71mm	Electrical signal	Electrical signal	1,0/1,0	40/40	1.4	DX3-606-B619
5/3 Valves							
	1 - 43mm	Electrical signal	Electrical signal	2,6	30/95	0.65	DX1-616-B619
	2 - 56mm	Closed center	Self centering	2,1	40/190	0.9	DX2-616-B619
	3 - 71mm			2,1	55/330	1.4	DX3-616-B619
	1 - 43mm	Electrical signal	Electrical signal	2,8	25/70	0.65	DX1-611-B619
	2 - 56mm	Vented center	Self centering	2,2	40/140	0.9	DX2-611-B619
	3 - 71mm			2,1	60/270	1.4	DX3-611-B619
	1 - 43mm	Electrical signal	Electrical signal	2,4	25/65	0.65	DX1-613-B619
	2 - 56mm	Press. center	Self centering	2,1	40/150	0.9	DX2-613-B619

Solenoid operated ISO valve, CNOMO, 24 VDC with Din A coil and M12 connector

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	1 - 43mm	Electrical signal	Spring	3,9/2,5	40/55	0.65	DX1-621-B219
	2 - 56mm	Electrical signal	Spring	3,6/2,4	60/105	0.9	DX2-621-B219
	3 - 71mm	Electrical signal	Spring	3,6/2,3	85/160	1.4	DX3-621-B219
	1 - 43mm	Electrical signal	Differential	3,3/1,9	30/70	0.65	DX1-651-B219
	2 - 56mm	Electrical signal	Differential	3,3/2,0	55/110	0.9	DX2-651-B219
	3 - 71mm	Electrical signal	Differential	3,3/1,9	80/180	1.4	DX3-651-B219
	1 - 43mm	Electrical signal	Electrical signal	1,0/1,0	25/25	0.8	DX1-606-B219
	2 - 56mm	Electrical signal	Electrical signal	1,0/1,0	30/30	1.05	DX2-606-B219
	3 - 71mm	Electrical signal	Electrical signal	1,0/1,0	40/40	1.55	DX3-606-B219
5/3 Valves							
	1 - 43mm	Electrical signal	Electrical signal	2,6	30/95	0.8	DX1-616-B219
	2 - 56mm	Closed center	Self centering	2,1	40/190	1.05	DX2-616-B219
	3 - 71mm			2,1	55/330	1.55	DX3-616-B219
	1 - 43mm	Electrical signal	Electrical signal	2,8	25/70	0.8	DX1-611-B219
	2 - 56mm	Vented center	Self centering	2,2	40/140	1.05	DX2-611-B219
	3 - 71mm			2,1	60/270	1.55	DX3-611-B219
	1 - 43mm	Electrical signal	Electrical signal	2,4	25/65	0.8	DX1-613-B219
	2 - 56mm	Press. center	Self centering	2,1	40/150	1.05	DX2-613-B219

Solenoid or air pilot actuation. Vacuum to 10 bar heavy duty applications.



- Size HA and HB (26mm and 18mm)
- Heavy duty and corrosion resistant body
- Internal led & rectifier
- Internal or external pilot supply with same valve
- M12 common wiring

Operation information

Working pressure :	2,0 to 10 bar	
Working temperature :	-15 to +50°C	
	Size 02	Size 01
Flow (Qmax.) :	10,8 l/s	25,3 l/s
Flow (Qn) :	6,5 l/s	15,3 l/s

Solenoid operated ISO valve, 24VDC, central M12 connection

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	02 - 18mm	Electrical signal	Spring & Diff.	3,1	20/40	0.15	HBEWXBG2G9000FA
	01 - 26mm	Electrical signal	Spring & Diff.	3,1	20/45	0.25	HAEWXBG2G9000FA
	02 - 18mm	Electrical signal	Differential	2,7	15/40	0.15	HB1WXBG2G9000FA
	01 - 26mm	Electrical signal	Differential	2,7	15/50	0.25	HA1WXBG2G9000FA
	02 - 18mm	Electrical signal	Electrical signal	1,7	10	0.165	HB2WXBG2G9000FA
	01 - 26mm	Electrical signal	Electrical signal	1,7	10	0.265	HA2WXBG2G9000FA
5/3 Valves							
	2 - 18mm	Electrical signal	Electrical signal	2,4	15/60	0.165	HB5WXBG2G9000FA
	01 - 26mm	Closed center	Self centering	2,4	15/50	0.265	HA5WXBG2G9000FA
	02 - 18mm	Electrical signal	Electrical signal	2,4	15/60	0.165	HB6WXBG2G9000FA
	01 - 26mm	Vented center	Self centering	2,4	15/50	0.265	HA6WXBG2G9000FA
	02 - 18mm	Electrical signal	Electrical signal	2,4	15/60	0.165	HB7WXBG2G9000FA
	01 - 26mm	Press. center	Self centering	2,4	15/50	0.265	HA7WXBG2G9000FA

Pneumatic operated ISO valve

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	02 - 18mm	Air signal	Spring & Diff.	3,1	15/30	0.115	HBFWX000XXA
	01 - 26mm	Air signal	Spring & Diff.	3,1	15/40	0.215	HAFWX000XXA
	02 - 18mm	Air signal	Differential	2,7	10/30	0.115	HB3WX000XXA
	01 - 26mm	Air signal	Differential	2,7	15/35	0.215	HA3WX000XXA
	02 - 18mm	Air signal	Air signal	1,7	8	0.115	HB4WX000XXA
	01 - 26mm	Air signal	Air signal	1,7	10	0.215	HA4WX000XXA
5/3 Valves							
	2 - 18mm	Air signal	Air signal	2,4	15/35	0.115	HB8WX000XXA
	01 - 26mm	Closed center	Self centering	2,4	15/40	0.215	HA8WX000XXA
	02 - 18mm	Air signal	Air signal	2,4	15/35	0.115	HB9WX000XXA
	01 - 26mm	Vented center	Self centering	2,4	15/40	0.215	HA9WX000XXA
	02 - 18mm	Air signal	Air signal	2,4	15/35	0.115	HB0WX000XXA
	01 - 26mm	Press. center	Self centering	2,4	15/40	0.215	HA0WX000XXA

Solenoid actuated Iso valve for multiple and centralised field bus (Plug-in)

- Size HA and HB (26mm and 18mm)
- Heavy duty and corrosion resistant body
- Internal led & rectifier
- Internal or external pilot supply with same valve
- Multiple connection, Sub D25, M23, Terminal block
- Communication with ISYS NET



Operation information

Working pressure :	2,0 to 10 bar	
Working temperature :	-15 to +50°C	
	Size 02	Size 01
Flow (Qmax.) :	10,8 l/s	25,3 l/s
Flow (Qn) :	6,5 l/s	15,3 l/s

Solenoid operated ISO plug-in valve, 24VDC

Manual override non locking, Led & surge suppressor

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	02 - 18mm	Electrical signal	Spring & Diff.	3,1	20/40	0.13	HBEVXBG0G9A HAEVXBG0G9A
	01 - 26mm	Electrical signal	Spring & Diff.	3,1	20/45	0.23	
	02 - 18mm	Electrical signal	Differential	2,7	15/40	0.13	HB1VXBG0G9A HA1VXBG0G9A
	01 - 26mm	Electrical signal	Differential	2,7	15/50	0.23	
	02 - 18mm	Electrical signal	Electrical signal	1,7	10	0.145	HB2VXBG0G9A HA2VXBG0G9A
	01 - 26mm	Electrical signal	Electrical signal	1,7	10	0.245	
5/3 Valves							
	02 - 18mm	Electrical signal	Electrical signal	2,4	15/60	0.145	HB5VXBG0G9A HA5VXBG0G9A
	01 - 26mm	Closed center	Self centering	2,4	15/50	0.245	
	02 - 18mm	Electrical signal	Electrical signal	2,4	15/60	0.145	HB6VXBG0G9A HA6VXBG0G9A
	01 - 26mm	Vented center	Self centering	2,4	15/50	0.245	
	02 - 18mm	Electrical signal	Electrical signal	2,4	15/60	0.145	HB7VXBG0G9A HA7VXBG0G9A
	01 - 26mm	Press. center	Self centering	2,4	15/50	0.245	

Heavy duty valve. Solenoid or air pilot. Vacuum to 10 bar. Wide choice of electrical connections.

- Size 1, 2, 3
- Heavy duty and corrosion resistant body
- Vacuum to 10 bar
- Internal or external pilot supply with same valve
- Din A, M12, M23 connections



Operation information

Working pressure :	2,0 to 10 bar		
Working temperature :	-15 to +50°C		
	Size 1	Size 2	Size 3
Flow (Qmax.) :	34,5 l/s	69,0 l/s	130,8 l/s
Flow (Qn) :	20,8 l/s	42,0 l/s	83,7 l/s

Solenoid operated ISO valve fitted with CNOMO solenoid(s) 24 VDC

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	1 - 43mm	Electrical signal	Spring & Diff.	3,1/2,5	25/35	0.77	H1EWXBBL49C
	2 - 56mm	Electrical signal	Spring & Diff.	3,1/2,1	40/70	1.19	H2EWXBBL49C
	3 - 71mm	Electrical signal	Spring & Diff.	3,8/3,3	70/80	1.47	H3EWXBBL49C
	1 - 43mm	Electrical signal	Differential	1,7/1,9	25/45	0.77	H11WXBBL49C
	2 - 56mm	Electrical signal	Differential	2,4/1,7	35/80	1.19	H21WXBBL49C
	3 - 71mm	Electrical signal	Differential	3,5/2,4	55/85	1.47	H31WXBBL49C
	1 - 43mm	Electrical signal	Electrical signal	1,7	15	0.94	H12WXBBL49C
	2 - 56mm	Electrical signal	Electrical signal	1,7	20	1.36	H22WXBBL49C
	3 - 71mm	Electrical signal	Electrical signal	2,4	25	1.64	H32WXBBL49C
5/3 Valves							
	1 - 43mm	Electrical signal	Electrical signal	2,4	15/60	0.94	H15WXBBL49C
	2 - 56mm	Closed center	Self centering	3,5	30/75	1.36	H25WXBBL49C
	3 - 71mm			3,5	23/80	1.64	H35WXBBL49C
	1 - 43mm	Electrical signal	Electrical signal	2,4	15/60	0.94	H16WXBBL49C
	2 - 56mm	Vented center	Self centering	3,5	30/75	1.36	H26WXBBL49C
	3 - 71mm			3,5	23/80	1.64	H36WXBBL49C
	1 - 43mm	Electrical signal	Electrical signal	2,4	15/60	0.94	H17WXBBL49C
	2 - 56mm	Press. center	Self centering	3,5	30/75	1.36	H27WXBBL49C
	3 - 71mm			3,5	23/80	1.64	H37WXBBL49C

Solenoid operated ISO valve fitted with CNOMO operator without coil

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	1 - 43mm	Electrical signal	Spring & Diff.	3,1/2,5	25/35	0.65	H1EWXBBNXXC
	2 - 56mm	Electrical signal	Spring & Diff.	3,1/2,1	40/70	1.07	H2EWXBBNXXC
	3 - 71mm	Electrical signal	Spring & Diff.	3,8/3,3	70/80	1.35	H3EWXBBNXXC
	1 - 43mm	Electrical signal	Differential	1,7/1,9	25/45	0.65	H11WXBBNXXC
	2 - 56mm	Electrical signal	Differential	2,4/1,7	35/80	1.07	H21WXBBNXXC
	3 - 71mm	Electrical signal	Differential	3,5/2,4	55/85	1.35	H31WXBBNXXC
	1 - 43mm	Electrical signal	Electrical signal	1,7	15	0.7	H12WXBBNXXC
	2 - 56mm	Electrical signal	Electrical signal	1,7	20	1.12	H22WXBBNXXC
	3 - 71mm	Electrical signal	Electrical signal	2,4	25	1.4	H32WXBBNXXC
5/3 Valves							
	1 - 43mm	Electrical signal	Electrical signal	2,4	15/60	0.7	H15WXBBNXXC
	2 - 56mm	Closed center	Self centering	3,5	30/75	1.12	H25WXBBNXXC
	3 - 71mm			3,5	23/80	1.4	H35WXBBNXXC
	1 - 43mm	Electrical signal	Electrical signal	2,4	15/60	0.7	H16WXBBNXXC
	2 - 56mm	Vented center	Self centering	3,5	30/75	1.12	H26WXBBNXXC
	3 - 71mm			3,5	23/80	1.4	H36WXBBNXXC
	1 - 43mm	Electrical signal	Electrical signal	2,4	15/60	0.7	H17WXBBNXXC
	2 - 56mm	Press. center	Self centering	3,5	30/75	1.12	H27WXBBNXXC
	3 - 71mm			3,5	23/80	1.4	H37WXBBNXXC

Solenoid operated ISO valve, 24VDC, central M12 connection

Oriented side 14, Led & surge suppressor

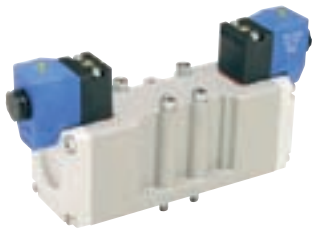
Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	1 - 43mm	Electrical signal	Spring & Diff.	3,1/2,5	30/40	0.77	H1EWXBG2B9000FC
	2 - 56mm	Electrical signal	Spring & Diff.	3,1/2,1	45/70	1.29	H2EWXBG2B9000FC
	3 - 71mm	Electrical signal	Spring & Diff.	3,8/3,3	75/80	1.57	H3EWXBG2B9000FC
	1 - 43mm	Electrical signal	Differential	1,7/1,9	30/50	0.77	H11WXBG2B9000FC
	2 - 56mm	Electrical signal	Differential	2,4/1,7	40/80	1.29	H21WXBG2B9000FC
	3 - 71mm	Electrical signal	Differential	3,5/2,4	60/85	1.57	H31WXBG2B9000FC
	1 - 43mm	Electrical signal	Electrical signal	1,7	20	1.04	H12WXBG2B9000FC
	2 - 56mm	Electrical signal	Electrical signal	1,7	25	1.46	H22WXBG2B9000FC
	3 - 71mm	Electrical signal	Electrical signal	2,4	30	1.74	H32WXBG2B9000FC
5/3 Valves							
	1 - 43mm	Electrical signal	Electrical signal	2,4	20/65	1.04	H15WXBG2B9000FC
	2 - 56mm	Closed center	Self centering	3,5	35/80	1.46	H25WXBG2B9000FC
	3 - 71mm			3,5	40/85	1.74	H35WXBG2B9000FC
	1 - 43mm	Electrical signal	Electrical signal	2,4	20/65	1.04	H16WXBG2B9000FC
	2 - 56mm	Vented center	Self centering	3,5	35/80	1.46	H26WXBG2B9000FC
	3 - 71mm			3,5	40/85	1.74	H36WXBG2B9000FC
	1 - 43mm	Electrical signal	Electrical signal	2,4	20/65	1.04	H17WXBG2B9000FC
	2 - 56mm	Press. center	Self centering	3,5	35/80	1.46	H27WXBG2B9000FC
	3 - 71mm			3,5	40/85	1.74	H37WXBG2B9000FC

Pneumatic operated ISO valve without manual override

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	1 - 43mm	Air signal	Spring & Diff.	3,1/2,5	20/30	0.6	H1FWX000XXC
	2 - 56mm	Air signal	Spring & Diff.	3,1/2,1	35/70	1.02	H2FWX000XXC
	3 - 71mm	Air signal	Spring & Diff.	3,8/3,3	65/75	1.3	H3FWX000XXC
	1 - 43mm	Air signal	Differential	1,7/1,9	20/40	0.6	H13WX000XXC
	2 - 56mm	Air signal	Differential	2,4/1,7	30/80	1.02	H23WX000XXC
	3 - 71mm	Air signal	Differential	3,5/2,4	50/85	1.3	H33WX000XXC
	1 - 43mm	Air signal	Air signal	1,7	12	0.6	H14WX000XXC
	2 - 56mm	Air signal	Air signal	1,7	16	1.02	H24WX000XXC
	3 - 71mm	Air signal	Air signal	2,4	20	1.3	H34WX000XXC
5/3 Valves							
	1 - 43mm	Air signal	Air signal	2,4	15/55	0.6	H18WX000XXC
	2 - 56mm	Closed center	Self centering	3,5	20/70	1.12	H28WX000XXC
	3 - 71mm			3,5	30/80	1.3	H38WX000XXC
	1 - 43mm	Air signal	Air signal	2,4	15/55	0.6	H19WX000XXC
	2 - 56mm	Vented center	Self centering	3,5	20/70	1.02	H29WX000XXC
	3 - 71mm			3,5	30/80	1.3	H39WX000XXC
	1 - 43mm	Air signal	Air signal	2,4	15/55	0.6	H10WX000XXC
	2 - 56mm	Press. center	Self centering	3,5	20/70	1.02	H20WX000XXC
	3 - 71mm			3,5	30/80	1.3	H30WX000XXC

Solenoid actuator Iso valve for multiple and centralised field bus

- Size 1, 2, 3
- Heavy duty and corrosion resistant body
- Internal led rectifier
- Internal or external pilot supply with same valve
- Multiple connection, SubD25, M23, Terminal block
- Communication with ISYS NET



Operation information

Working pressure :	2,0 to 10 bar		
Working temperature :	-15 to +50°C		
	Size 1	Size 2	Size 3
Flow (Qmax.) :	34,5 l/s	69,0 l/s	130,8 l/s
Flow (Qn) :	20,8 l/s	42,0 l/s	83,7 l/s

Solenoid operated ISO valve, 24VDC, Plug-in

Led & surge suppressor

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	1 - 43mm	Electrical signal	Spring & Diff.	3,1/2,5	30/40	0.77	H1EVXBG0B9C
	2 - 56mm	Electrical signal	Spring & Diff.	3,1/2,1	45/70	1.19	H2EVXBG0B9C
	3 - 71mm	Electrical signal	Spring & Diff.	3,8/3,3	75/80	1.47	H3EVXBG0B9C
	1 - 43mm	Electrical signal	Differential	1,7/1,9	30/50	0.77	H11VXBG0B9C
	2 - 56mm	Electrical signal	Differential	2,4/1,7	40/80	1.19	H21VXBG0B9C
	3 - 71mm	Electrical signal	Differential	3,5/2,4	60/85	1.47	H31VXBG0B9C
	1 - 43mm	Electrical signal	Electrical signal	1,7	20	0.94	H12VXBG0B9C
	2 - 56mm	Electrical signal	Electrical signal	1,7	25	1.36	H22VXBG0B9C
	3 - 71mm	Electrical signal	Electrical signal	2,4	30	1.64	H32VXBG0B9C
5/3 Valves							
	1 - 43mm	Electrical signal	Electrical signal	2,4	20/65	0.94	H15VXBG0B9C
	2 - 56mm	Closed center	Self centering	3,5	35/80	1.36	H25VXBG0B9C
	3 - 71mm			3,5	40/85	1.64	H35VXBG0B9C
	1 - 43mm	Electrical signal	Electrical signal	2,4	20/65	0.94	H16VXBG0B9C
	2 - 56mm	Vented center	Self centering	3,5	35/80	1.36	H26VXBG0B9C
	3 - 71mm			3,5	40/85	1.64	H36VXBG0B9C
	1 - 43mm	Electrical signal	Electrical signal	2,4	20/65	0.94	H17VXBG0B9C
	2 - 56mm	Press. center	Self centering	3,5	35/80	1.36	H27VXBG0B9C
	3 - 71mm			3,5	40/85	1.64	H37VXBG0B9C

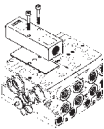
Solenoid operated ISO valve, with plug in operator, without coil

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
5/2 Valves							
	1 - 43mm	Electrical signal	Spring & Diff.	3,1/2,5	30/40	0.65	H1EVXBGNXXC
	2 - 56mm	Electrical signal	Spring & Diff.	3,1/2,1	45/70	1.07	H2EVXBGNXXC
	3 - 71mm	Electrical signal	Spring & Diff.	3,8/3,3	75/80	1.35	H3EVXBGNXXC
	1 - 43mm	Electrical signal	Differential	1,7/1,9	30/50	0.65	H11VXBGNXXC
	2 - 56mm	Electrical signal	Differential	2,4/1,7	40/80	1.07	H21VXBGNXXC
	3 - 71mm	Electrical signal	Differential	3,5/2,4	60/85	1.35	H31VXBGNXXC
	1 - 43mm	Electrical signal	Electrical signal	1,7	20	0.7	H12VXBGNXXC
	2 - 56mm	Electrical signal	Electrical signal	1,7	25	1.12	H22VXBGNXXC
	3 - 71mm	Electrical signal	Electrical signal	2,4	30	1.4	H32VXBGNXXC
5/3 Valves							
	1 - 43mm	Electrical signal	Electrical signal	2,4	20/65	0.7	H15VXBGNXXC
	2 - 56mm	Closed center	Self centering	3,5	35/80	1.12	H25VXBGNXXC
	3 - 71mm			3,5	40/85	1.4	H35VXBGNXXC
	1 - 43mm	Electrical signal	Electrical signal	2,4	20/65	0.7	H16VXBGNXXC
	2 - 56mm	Vented center	Self centering	3,5	35/80	1.12	H26VXBGNXXC
	3 - 71mm			3,5	40/85	1.4	H36VXBGNXXC
	1 - 43mm	Electrical signal	Electrical signal	2,4	20/65	0.7	H17VXBGNXXC
	2 - 56mm	Press. center	Self centering	3,5	35/80	1.12	H27VXBGNXXC
	3 - 71mm			3,5	40/85	1.4	H37VXBGNXXC

Side ported subbase

	Description	Port size	Weight	Order code BSPP "G"	Order code NPT
	Individual subbase kit				
	Subbase with side port				
	Size 02	G1/8	0.07	PL02-01-70	PL02-01-80
	Size 01	G1/4	0.12	PL01-02-70	PL01-02-80

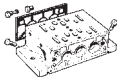
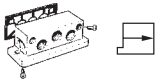
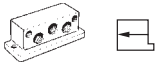
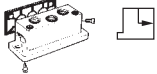
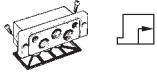
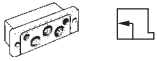
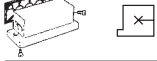
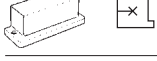
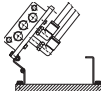
Side ported manifold

	Description	Port size	Weight	Order code BSPP "G"	Order code NPT
	Two station manifold base with side ports				
	To suit valves with internal supply solenoid				
	Size 02	G1/8	0.14	PJLP02-201-70	PJLP02-201-80
	Size 01	G1/4	0.7	PJLP01-202-70	PJLP01-202-80
	Two station manifold base				
	To suit pneumatic actuated valves				
	Size 01	G1/4	0.73	PJL01-202-70	PJL01-202-80
	End plate kit - for side ported two station manifold base				
	Size 02	G1/4	0.15	PEJ02-02-70	PEJ02-02-80*
	Size 01	G3/8	0.52	PEJ01-03-70	PEJ01-03-80**
	* Use with PJLP02				
	** Use with PJLP01 or PJL01				
	Gaskets and assembly hardware included.				

Accessories

	Description	Weight	Order code
	Blanking plate		
	Size 02	0.04	DX02BLK
	Size 01	0.05	DX01BLK
	Blanking plug (for subbase PJL)		
	Size 02	0.01	D02BD0
	Size 01	0.02	D01BD0
	Bolt, washer and nut		
	Size 02		DX02M2MB
	Size 01		DX01M2MB

ISO 15407-1 - Bottom ported manifold

Accessories	Designation	Weight (kg)	Order code (P2V-A, 18 mm)	Weight (kg)	Order code (P2V-B, 26 mm)
	Multiple manifold Including seal, fitting screws and plugs. Ports 2, 4, and 14 are bottom-connected. Fit plugs as required to provide common supply of operating air and common exhausts for solenoid valves.	0,20	P2V-AM511NB	0,40	P2V-BM512NB
	Multiple manifold Multiple manifold as above, but with the plugs fitted to suit use with valves with internal supply to solenoid.	0,20	P2V-AM511PB	0,40	P2V-BM512PB
	Intermediate manifold, 18 to 26 mm Including seals and fitting screws. For connecting P2V-AM511NB/PB multiple manifolds to P2V-BM511NB/PB multiple manifolds.	0,33	P2V-AM500BE	0,33	P2V-AM500BE
	Connection block G-side, including seal and fitting screws. For side connection.	0,18	P2V-AM512GS	0,21	P2V-BM513GS
	Connection block H-side. For side connection.	0,18	P2V-AM512HS	0,21	P2V-BM513HS
	Connection block G-side, including seal and fitting screws. For top connection.	0,18	P2V-AM512GT	0,21	P2V-BM513GT
	Connection block H-side. For top connection.	0,18	P2V-AM512HT	0,21	P2V-BM513HT
	Connection block G-side, including seal and fitting screws. For bottom connection.	0,18	P2V-AM512GB	0,22	P2V-BM513GB
	Connection block H-side. For bottom connection.	0,18	P2V-AM512HB	0,22	P2V-BM513HB
	End cover G-side, including seal and fitting screws.	0,19	P2V-AM500G0	0,24	P2V-BM500G0
	End cover H-side	0,19	P2V-AM500H0	0,24	P2V-BM500H0
	Plug For sealing supply and exhaust air ducts between multiple manifolds with different primary supply pressures.	0,004	P2V-AK0P	0,01	P2V-BK0P
	Angle mounting set For raising multiple manifolds so that angle connections can be fitted to the underside. The parts are designed so that the entire manifold can be angled to simplify connection of the pipes. The set consists of four mounts, complete with all necessary screws and nuts.	0,14	P2V-AK0M	0,14	P2V-AK0M
	O-ring strip seal For sealing between bases and multiple manifolds. 3.53 mm diameter, Supplied in 5 m lengths.	0,07	9304331543	0,07	9304331543

Side ported manifold

	Description	Port size	Order code
	Manifold with two valve positions with terminal Strip (Non collective wiring)		
	Size 01 - 26mm	G1/4	PS551154CP
	Manifold with two single solenoid valve positions with single address board		
	Size 02 - 18mm	G1/8	PS561152JP
	Size 01 - 26mm	G1/4	PS551154JP
	Manifold with two valve positions with double address board		
	Size 02 - 18mm	G1/8	PS561152MP
	Size 01 - 26mm	G1/4	PS551154MP
	Extension Manifold with two valve positions with single address board *		
	Size 02 - 18mm	G1/8	PS561152NP
	Size 01 - 26mm	G1/4	PS551154NP
	Extension Manifold with two valve positions with double address board *		
	Size 02	G1/8	PS561152PP
	Size 01	G1/4	PS551154PP

* Use only one per manifold assembly to address more 24 solenoid

Side & bottom ported manifold

	Description	Port size	Order code
	Manifold with two valve positions with terminal Strip		
	Size 01 - 26mm	G1/4	PS551164CP
	Manifold with two valve positions with single address board		
	Size 02 - 18mm	G1/8	PS561162JP
	Size 01 - 26mm	G1/4	PS551164JP
	Manifold with two valve positions with double address board		
	Size 02 - 18mm	G1/8	PS561162MP
	Size 01 - 26mm	G1/4	PS551164MP
	Extension Manifold with two valve positions with single address board		
	Size 02 - 18mm	G1/8	PS561162NP
	Size 01 - 26mm	G1/4	PS551164NP
	Extension Manifold with two valve positions with double address board		
	Size 02	G1/8	PS561162PP
	Size 01	G1/4	PS551164PP

Accessories

	Description	Order code
	Blanking plate	
	Size 02 - 18mm	PS5634P
	Size 01 - 26mm	PS5534P
	Manifold to Manifold gasket kit	
	HA & HB Gasket Standard	PS561AP
	HA & HB Gasket 1 Blocked	PS561BP
	HA & HB Gasket 1 2 3 Blocked	PS561CP

 Indicates stocked product.

Collective wiring end plate kits

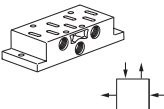
	Description	Port size	Order code
	Left & right ends modules with pressure & exhaust port, auxiliary port , and non collective wiring (only for PS551154CP) Size 02 / 01	G3/8	PS5631011P
	Left & right ends modules with pressure & exhaust port, auxiliary port , and SubD25 connection Size 02 / 01	G3/8	PS5620L21P
	Left & right ends modules with pressure & exhaust port, auxiliary port , and 19pin Brad Harrison connection Size 02 / 01	G3/8	PS5620L31P
	Left & right ends modules with pressure & exhaust port, auxiliary port , and 12pin M23 connection Size 02 / 01	G3/8	PS5620L41P
	Left & right ends modules with pressure & exhaust port, auxiliary port , and 16 point terminal strip Size 02 / 01	G3/8	PS5620L51P
	Left & right ends modules with pressure & exhaust port, auxiliary port , and ISYSNET (32 output driver is included) Size 02 / 01	G3/8	PS5620L61P

Accessories

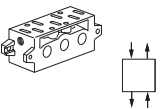
	Description	Order code
	32 output driver module for spare part	PSSV32A
	HA & HB 24 Out Cable Size 02 / 01	G3/8 PS5624P
	HA & HB 32 Out cable Size 02 / 01	G3/8 PS5632P
	25 pin female 25 pin SubD25 cable 3m	P8LMH25M3A

 Indicates stocked product.

VDMA Side Ported Subbases

	Description	Size	Port size	Weight	Order code
	Subbases VDMA				
	Side port according to VDMA	1 - 43mm	G1/4	0.16	P2N-VS512SD
	Side port according to VDMA	2 - 56mm	G3/8	0.28	P2N-WS513SD
	Side port according to VDMA	3 - 71mm	G1/2	0.35	P2N-YS514SD

VDMA Bottom Ported Manifold

	Description	Size	Port size	Weight	Order code
	VDMA Form C				
	Bottom port according to VDMA	1 - 43mm	G1/4	0.24	P2N-VM512MB
	Bottom port according to VDMA	2 - 56mm	G3/8	0.36	P2N-WM513MB
	Bottom port according to VDMA	3 - 71mm	G1/2	0.70	P2N-YM514MB
	VDMA Transition plate				
	Size 1 to Size 3	1 to 3	G1/4		P2N-VM500AK
	Kit includes: Transition plate only				
	VDMA Form D - End plate				
	According to VDMA	1 - 43mm	G3/8	0.21	P2N-VM513E
	According to VDMA	2 - 56mm	G1/2	0.36	P2N-WM514E
	According to VDMA	3 - 71mm	G1	0.68	P2N-YM518E
	VDMA Isolation - Main galley				
	According to VDMA	1 - 43mm	G3/8	0.21	P2N-VK0P
	According to VDMA	2 - 56mm	G1/2	0.36	P2N-WK0P
	According to VDMA	3 - 71mm	G1	0.68	P2N-YK0P
	Kit includes: (1) Isolator plug.				

Accessories

	Description	Size	Port size	Weight	Order code
	Blanking plate				
		1 - 43mm	G1/4	0.10	P2N-AA5B
		2 - 56mm	G3/8	0.15	P2N-BA5B
	Kit includes: (1) Blanking plate, (1) Gasket and (4) Mounting bolts	3 - 71mm	G1/2	0.20	P2N-CA5B

 Indicates stocked product.

Side ported subbases

Description	Size	Port size	Weight	Order code BSP	Order code NPT
 Single subbase with side ports 1 3 5 2 4 ports & 12 14	1 - 43mm	G1/4	0.16	PL1-1/4-70	PL1-1/4-80
	1 - 43mm	G3/8	0.16	PL1-3/8-70	
	2 - 56mm	G3/8	0.28	PL2-3/8-70	PL2-3/8-80
	2 - 56mm	G1/2		P2N-HS514SS	
	3 - 71mm	G1/2		PL3-1/2-70	PL3-1/2-80
	3 - 71mm	G3/4		P2N-JS516SD	

Bottom ported subbases

Description	Size	Port size	Weight	Order code BSP	Order code NPT
 Single subbase with side ports 1 3 5 2 4 ports & 12 14	1 - 43mm	G1/4	0.37	PD1-1/4-70	PD1-1/4-80
	2 - 56mm	G3/8	0.59	PD2-3/8-70	PD2-3/8-80
	3 - 71mm	G1/2	0.59	PD3-1/2-70	

Size 1 bottom ported manifold

Description	Size	Port size	Weight	Order code
 Manifold with bottom ports low profile	1 - 43mm	G1/4	0.2	P2N-AM512MB
 Connecting block Top or bottom ported connecting block for above manifold "low profile"	1 - 43mm	G3/8	0.15	P2N-AM513GT
 End End piece for above manifold "low profile"	1 - 43mm	no	0.06	P2N-AM500J
 Intermediate supply Top or bottom ported intermediate supply for above manifold "low profile"	1 - 43mm	G3/8	0.14	P2N-AM513BT
 Isolation plugs isolating seal for above manifold "low profile"	1 - 43mm		0.07	P2N-AK0P

Sizes 1 & 2 side ported manifold

Description	Size	Port size	Weight	Order code
 Manifold Manifold with side port	1 - 43mm	G1/4	0.24	P2N-EM512MD
	2 - 56mm	G3/8	0.21	P2N-FM513MD
 End Side ported connecting kit for above manifold with side ports	1 - 43mm	G3/8	0.36	P2N-EM513ES
	2 - 56mm	G1/2	0.29	P2N-FM514ES

 Indicates stocked product.

Side ported manifold

	Description	Size	Port size	Order code
	Manifold with terminal Strip (non collective wiring)	1 - 43mm	G3/8	PS401156CCP
		2 - 56mm	G1/2	PS411158CCP
		3 - 71mm	G3/4	PS421150CCP
	Manifold with single address board (single solenoid)	1 - 43mm	G3/8	PS401156JCP
	Manifold with double address board	1 - 43mm	G3/8	PS401156MCP

Accessories

	Description	Size	Port size	Order code
	Blanking plate	1 - 43mm	G3/8	PS4034CP
		2 - 56mm	G1/2	PS4134CP
		3 - 71mm	G3/4	PS4234CP
	Insulation plug	1 - 43mm	G3/8	PS4032CP
		2 - 56mm	G1/2	PS4132CP
		3 - 71mm	G3/4	PS4232CP
	Manifold to Manifold gasket kit	1 - 43mm	G3/8	PS4013P

Coils for plug in valve

	Description		Order code
	12 V DC	5599-2 coil	PS404145P
	24 V DC	5599-2 coil	PS4041B9P
	24 V AC	5599-2 coil	PS404142P
	120 V AC	5599-2 coil	PS404123P
	240 V AC	5599-2 coil	PS404157P

 Indicates stocked product.

Collective wiring end plate kits

	Description	Port size	Order code
	Left & right ends modules with pressure & exhaust port, auxiliary port , and non collective wiring		
	Size 1	G1/2	PS4031011CP
	Size 2	G3/4	PS4131011CP
	Size 3	G3/4	PS4231011CP
	Left & right ends modules with pressure & exhaust port, auxiliary port , and SubD25 connection		
	Size 1	G1/2	PS4020L21CP
	Left & right ends modules with pressure & exhaust port, auxiliary port , and 19pin Brad Harrison connection		
	Size 1	G1/2	PS4020L31CP
	Left & right ends modules with pressure & exhaust port, auxiliary port , and 12pin M23 connection		
	Size 1	G1/2	PS4020L41CP
	Left & right ends modules with pressure & exhaust port, auxiliary port , and ISYSNET		
	Size 1	G3/8	PS4020L61CP

Accessories

	Description	Order code
	32 output driver module for spare part	PSSV32A
	HA & HB 24 Out Cable	PS4024P
	25 pin female 25 pin SubD25 cable 3m	P8LMH25M3A
	H1 H2 H3 Pilot Gasket	PS4007P
	Valve to base gasket	PS4005CP



Indicates stocked product.

Accessories - Sandwich Regulator

Features

- Remote air pilot operated for hard-to-reach pressure control.
- Unregulated pilot pressure to valve for consistent valve shifting regardless of pressure adjustment.

Gauge adaptor kit

Included with all HB Regulators. Both kits are required on all HA & HB Regulators when the Regulator is on the last station on the right (14) end.

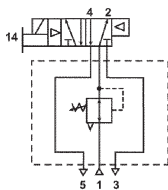


Description	Order code
Gauge kit	PS5651160P

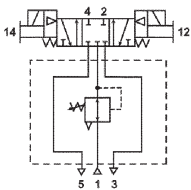
HB & HA Common Port Regulation

Provides adjustable regulated air pressure to the valves #1 port which gives the same pressure to both the #2 and #4 port of the manifold or subbase. The regulator is always on the 14 end of the valve.

Common port regulator with
4-way, 2-position
single solenoid valve



Common port regulator with
4-way, 3-position APB valve



HA - 26mm
(Common Port Regulator shown)



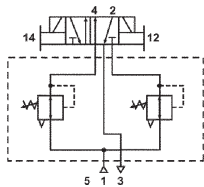
8 bar	Order code	
	Plug-in	Non Plug-in
Size 18mm	PS5638133P	PS5637133P
Size 26mm	PS5538133P	PS5537133P

HB & HA Independent Port Regulation

Dual Port Regulator

Provides regulated pressure to both ports. Pressure regulation can occur out of the #2 or #4 port of the valve. In this case #2 and #4 have to be cross wired.
3 position CP have to be used as a COE
3 position COE have to be used as a CP

Independent dual port regulator with
4-way, 2-position
double solenoid valve



Order chart - Sandwich Regulator (please contact Parker Sales Office)

PS5637

Series		
HB		
15407-1	18mm	PS5637
15407-2	18mm	PS5638
HA		
15407-1	26mm	PS5537
15407-2	26mm	PS5538

1

Regulator function	
1	Common pressure regulator
2	Independent pressure regulator

6

#4 Port regulator / Gauge*	
2	2-60 PSIG w/o Gauge
3	5-125 PSIG w/o Gauge
5	2-60 PSIG w/Gauge
6	5-125 PSIG w/Gauge

* For common pressure regulator option. Regulator gauge callout must be the same number for both Port #4 and port #2. (Example: 166)

6

#2 Port regulator / Gauge*	
2	2-60 PSIG w/o Gauge
3	5-125 PSIG w/o Gauge
5	2-60 PSIG w/Gauge
6	5-125 PSIG w/Gauge

* For common pressure regulator option. Regulator gauge callout must be the same number for both Port #4 and port #2. (Example: 166)

P

How to Configure Sandwich Regulator / Valve Combinations

Ordering Components

- Manifold or Subbase Kit required.
- Sandwich Regulator Kit configured for Internal Pilot as standard.
- Order valve as External Pilot.

Internal Pilot Configuration -

Pressure in Base Port 1 feeds regulator configured for Internal Pilot which feeds valve configured for External Pilot.

Flow control - ISO 15407 - Sandwich flow controls features

- Both adjustment screws are located on the 12 end of the unit.
- Sandwich Flow Control mounts with its own studs, which means the valve uses standard bolts for mounting.
- Sandwich Flow Control is not to be used as a shut off device and is not bubble tight when needles are fully turned down.



Plug-In
15407-2
18mm Shown

Size	Order code	
	Plug-in	Non Plug-in
	15407-2	15407-1
Size 18mm	PS5635P	PS5642P
Size 26mm	PS5535P	PS5542P

Accessories - Sandwich Regulator

Features

- Remote air pilot operated for hard-to-reach pressure control.
- Unregulated pilot pressure to valve for consistent valve shifting regardless of pressure adjustment.

Gauge adaptor kit

Included with all HB Regulators. Both kits are required on all HA & HB Regulators when the Regulator is on the last station on the right (14) end.

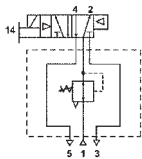


Description	Order code
Gauge kit	PS5651160P

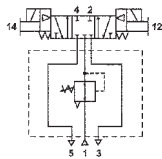
ISYS ISO 1 / 2 / 3 Common Port Regulation

Provides adjustable regulated air pressure to the valves #1 port which gives the same regulated pressure to both the #2 and #4 port of the manifold or subbase. The regulator is always on the 14 end of the valve.

Common port regulator with 4-way, 2-position single solenoid valve



Common port regulator with 4-way, 3-position APB valve



Order code

Plug-in

Non Plug-in

Size 1

8 bar

PS4038133CP

PS4037133CP

ISYS ISO 1 / 2 / 3 Independent Port Regulation

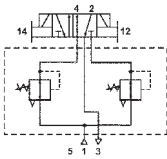
Dual Port Regulator or Single Port Regulator

Provides regulated pressure to both ports. Pressure regulation can occur out of the #2 or #4 port of the valve. Full line pressure would be provided with a pass plate.

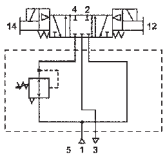


When using an independent Pressure Sandwich Regulator, the cylinder outlet ports are reversed. The 12 end energizes the #2 port. The 3-Position CE and PC functions are also reversed. (See schematics on right).

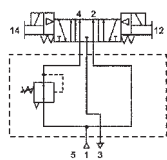
Independent dual port regulator with 4-way, 2-position double solenoid valve



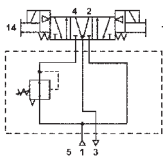
Independent port regulator with 4-way, 3-position all ports blocked valve



Independent port regulator with 4-way, 3-position inlet to cylinder function



Independent port regulator with 4-way, 3-position cylinder to exhaust function



CAUTION: Requires 4-way, 3-position, cylinder to exhaust valve

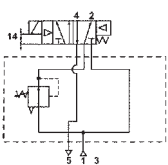


CAUTION: Requires 4-way, 3-position, cylinder to exhaust valve

ISYS ISO 1 / 2 / 3 Selector Regulation

Supplies two different pressures to the valves #1 and #3 flow paths. Shifting the valve "selects" one or the other of these two pressures to flow out port #2. A Selector Regulator can: 1) Provide regulated pressure to one flow path and full line pressure to the other by use of the Line Pressure By-Pass Plate.

Selector regulator with 4-way, 2-position single solenoid valve



Order chart - Sandwich Regulator (please contact Parker Sales Office)

PS4037	1	6	6	C	P
Series	Regulator function	#4 Port regulator / Gauge*	#2 Port regulator / Gauge*		
ISYS ISO Size 1 5599-1 PS4037 5599-2 PS4038	1 Common pressure regulator	0 Line By-Pass Plate**	0 Line By-Pass Plate**		
ISYS ISO Size 2 5599-1 PS4137 5599-2 PS4138	2 Independent pressure regulator	1 1-30 PSIG w/o Gauge	1 1-30 PSIG w/o Gauge		
ISYS ISO Size 3 5599-1 PS4237 5599-2 PS4238	3 Selector Regulator	2 2-60 PSIG w/o Gauge	2 2-60 PSIG w/o Gauge		
		3 5-125 PSIG w/o Gauge	3 5-125 PSIG w/o Gauge		
		4 1-30 PSIG w/Gauge	4 1-30 PSIG w/Gauge		
		5 2-60 PSIG w/Gauge	5 2-60 PSIG w/Gauge		
		6 5-125 PSIG w/Gauge	6 5-125 PSIG w/Gauge		
		C Air Pilot w/60 PSIG Gauge	C Air Pilot w/60 PSIG Gauge		
		D Air Pilot w/60 PSIG Gauge	D Air Pilot w/60 PSIG Gauge		

* For common pressure regulator option. Regulator gauge callout must be the same number for both Port #4 and port #2. (Example: 166)

** Pressure Line By-Pass Option can only be used with independent and Selector Regulators (Option 2 & 3 in Sandwich Block Function).

How to Configure Sandwich Regulator / Valve Combinations

Ordering Components

- Manifold or Subbase Kit required.
- Sandwich Regulator Kit configured for Internal Pilot as standard.
- Order valve as External Pilot.

Internal Pilot Configuration -

Pressure in Base Port 1 feeds regulator configured for Internal Pilot which feeds valve configured for External Pilot.

External Pilot Configuration - H1, H2, H3

An External Pilot pressure in Port 12 or 14 of the base feeds thru the Sandwich Regulator 12 or 14 galley directly to the 12/14 pilot of the valve.

This configuration takes an External Pilot from the 12 port of the base and passes it thru the regulator to feed the 12 galley of the valve.

Flow Control - Size 1 / 2 / 3 - ISO 5599 - Sandwich flow controls features

- Both adjustment screws are located on the 12 end of the unit.
- Sandwich Flow Control mounts with its own studs, which means the valve uses standard bolts for mounting.

Size	Order code	
	Plug-in	Non Plug-in
	5599-2	5599-1
Size 1	PS4035CP	PS4042CP
Size 2	PS4135CP	PS4142CP
Size 3	PS4235CP	PS4242CP



Plug-In
5599-2
Size 2 Shown

Solenoid coils with Din A or Industrial connection

Voltage	Order code Din A Standard 30 x 30	Weight (Kg)	Order code Din A Mobile 30 x 30	Weight (Kg)	Order code Industrial standard 22 x 30	Weight (Kg)
Direct current						
12V DC	P2FCA445	0.105	P2FCA447	0.105	P2FCB445	0.093
24V DC	P2FCA449	0.105	P2FCA448	0.105	P2FCB449	0.093
48V DC	P2FCA453*	0.105	P2FCA474	0.105	P2FCB451	0.093
72V DC			P2FCA470	0.105		
96V DC			P2FCA471	0.105		
110V DC			P2FCA472	0.105		
Alternative current						
12V 50/60Hz	P2FCA440	0.105			P2FCB440	0.093
24V 50/60Hz	P2FCA442	0.105			P2FCB442	0.093
48V 50/60Hz	P2FCA469#	0.105				
110V 50Hz, 120V 60Hz	P2FCA453	0.105			P2FCB453	0.093
230V 50Hz, 230V 60Hz	P2FCA457	0.105			P2FCB457	0.093

* P2FCA453 is compatible with 110 V AC and 48 V DC

P2FCA469 is 24 V DC 6.8W or 48 V 50Hz 9.9 VA

Solenoid coils with M12 connection

Voltage	Order code 30 x 30	Weight (Kg)	Order code 22 x 30	Weight (Kg)
Direct current				
24V DC	P2FC6419	0.065	P2FC7419	0.065

Spare Solenoid Nuts

Valves requiring captured exhaust should be fitted with plastic knurled nut

Order code
P2FNP

Valves with vented exhaust are fitted with diffuser plastic nut

Order Code
P2FND

Spare Solenoid Operators

Solenoid pilot operator CNOMO NC

Description	Order code No manual override	Weight (Kg)	Order code Non-lock manual override	Weight (Kg)	Order code Locking manual override	Weight (Kg)
Standard duty	P2FP23N4A	0.065	P2FP23N4B	0.065	P2FP23N4C	0.065
Mobile metal	P2FP43M4A	0.1				

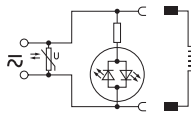
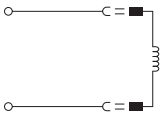
Note.

Solenoid pilot operators are fitted to the Viking valve range. Order the above part numbers for spares. The operators are supplied with mounting screws and interface 'O' rings.

Coils and connectors must be ordered separately.

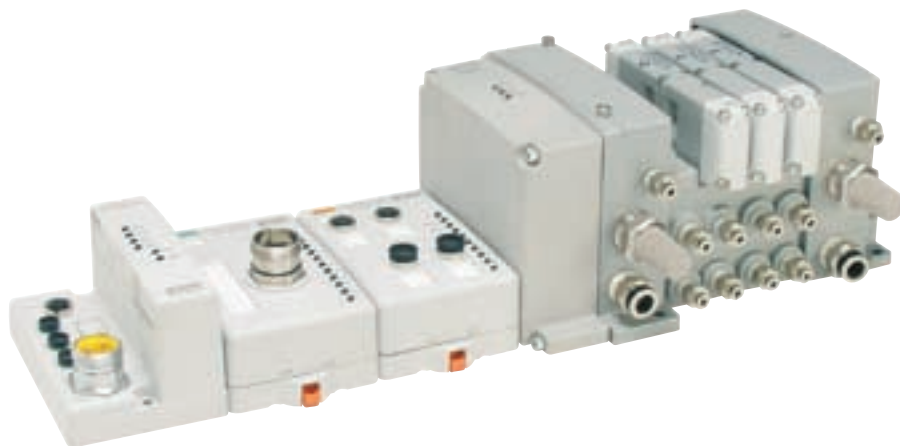
Solenoid Connectors / Cable Plugs EN175301-803

	Description	Order code 15mm Form C/ISO15217	Order code 22mm Industrial Form B	Order code 30mm Form A/ISO4400
With large headed screw suitable for mounting in inaccessible or recess position 	Standard IP65	P8C-C		
	24V DC LED and protection IP65	P8C-C26C		
	110V AC LED and protection IP65	P8C-C21E		
With standard screw 	Standard IP65 without flying lead	P8C-D	3EV10V10	3EV290V10
	With LED and protection 24V AC/DC	P8C-D26C	3EV10V20-24	3EV290V20-24
	With LED and protection 110V AC	P8C-D21E	3EV10V20-110	3EV290V20-110
	With LED and protection 230V AC		3EV10V20-230	3EV290V20-230
With cable 	Standard with 2m cable IP65	P8L-C2		
	Standard with 5m cable IP65	P8L-C5		
	24V AC/DC, 2m cable LED and protection IP65	P8L-C226C		
	24V AC/DC, 5m cable LED and protection IP65	P8L-C526C	3EV10V20-24L5	3EV290V20-24L5
	24V AC/DC, 10m cable LED and protection IP65	P8L-CA26C		
	110V AC/DC, 2m cable LED and protection IP65	P8L-C221E		
	110V AC/DC, 5m cable LED and protection IP65	P8L-C521E	3EV10V20-110L5	3EV290V20-110L5
	230V AC, 5m cable LED and protection IP65		3EV10V20-230L5	3EV290V20-230L5



P8C-C	P8C-D26C	P8L-C226C
P8C-D	P8C-D21E	P8L-C526C
P8L-C2	P8C-C26C	P8L-CA26C
P8L-C5	P8C-C21E	P8L-C221E
3EV10V10		P8L-C521E
	3EV10V20-24	3EV10V20-24L5
	3EV10V20-110	3EV10V20-110L5
	3EV10V20-230	3EV10V20-230L5

Field Bus System



Integrated Solution

- A complete field bus communication offering for all ISO valves.
- Extremely fast I/O backplane uses change-of-state (COS) connections to maximize performance.
- UL, C-UL and CE certifications (as marked).

I/O Modules

- Accepts signals from sensors, photo eyes, limits and other field input devices.
- Provides signals to remotely operating solenoid valves and other field operating output devices.
- Choice of digital, analog, high watt I/O Modules.
- Choose from a broad range of color coded I/O types with connector choices of 8mm, 12mm or M23.
- Built-in miswiring, short circuit, open circuit detection with electronic feedback.

Modularity

- Ease of module replacement with unique latching mechanisms eliminating the need for screws.
- Auto Device Replacement allows OEMs to add I/O modules without making changes to the control software.
- Built-in panel grounding.
- Electronic and mechanical keying prevents users from placing I/O modules in the wrong sequence.

Communication Modules

- A Communication Module supports up to a maximum of 63 I/O modules and up to 264 Inputs and 264 Outputs.

ControlNet™

DeviceNet™

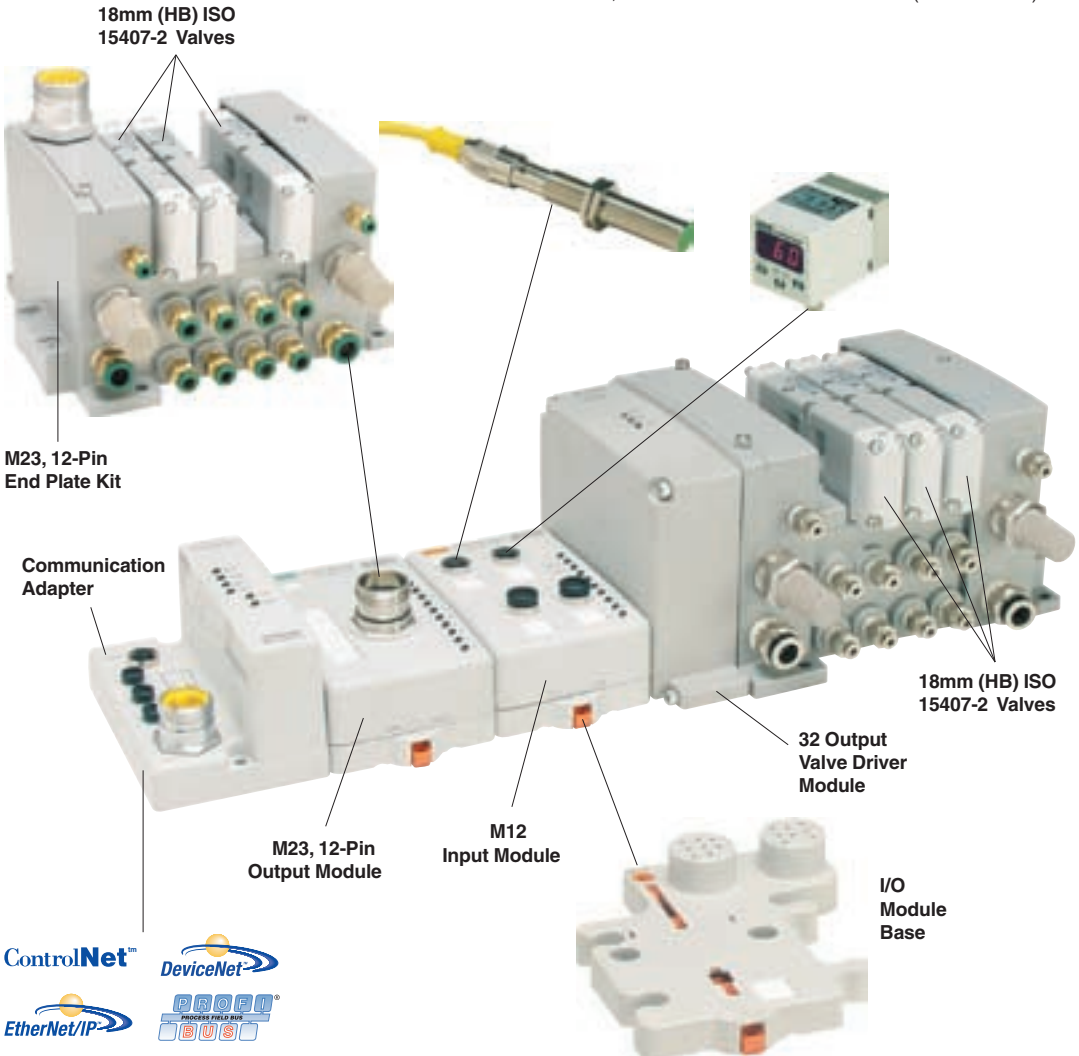
EtherNet/IP™

PROFI®
PROCESS FIELD BUS
BUS

ISYSNET Field Bus System

Centralised Solution

- A complete field bus communication offering for all ISO valves.
- UL, C-UL and CE certifications (as marked).



I/O Configuration

- Centralized isysnet system.
- Pneumatics and I/O are in close proximity to one another
- I/O density per module = 8.

Communication Modules



PSSCENA



PSSCCNA

†§ DeviceNet™ (M18 or M12)	PSSCDM18PA (M18) or PSSCDM12A (M12)	10 to 28.8VDC
†§ ControlNet™	PSSCCNA	10 to 28.8VDC
†§ Ethernet I/P™	PSSCENA	10 to 28.8VDC
†§ Profibus-DP®	PSSCPBA	10 to 28.8VDC

- * IP67 Certified
- † Reference the following documents for installation instructions.
DeviceNet - E101P; PSS-UM001A; ControlNet - E103P
Ethernet I/P - E104P; Profibus-DP - E102P
- § Requires a PSST8M23A or PSSV32A in all manifold assemblies.
PSSV32A is included in factory assembled manifolds and ISYSNET end plate kits.

EDS and GSD files located at www.parker.com/pneu/isysnet

I/O Modules



PSS8M12A



PSST8M23A



PSSNACM12A



PSSTACM12A



PSSN8M8A

† 8 Digital Inputs M12 on 4 M12 connectors for PNP Sensors	PSSN8M12A	10 to 28.8VDC
† 8 Digital Inputs M12 on 4 M12 connectors for NPN Sensors	PSSP8M12A	10 to 28.8VDC
† 8 Digital Inputs M8 for PNP Sensors	PSSN8M8A	10 to 28.8VDC
† 8 Digital Inputs M8 for NPN Sensors	PSSP8M8A	10 to 28.8VDC
* 8 Digital Outputs M12 (PNP Sourcing)	PSST8M12A	10 to 28.8VDC
* 8 Digital Outputs M8 (PNP Sourcing)	PSST8M8A	10 to 28.8VDC
§ 4 Digital Output, High Watt Relay M12 (PNP Sourcing) (2 Amp)	PSSTR4M12A	24VDC
*8 Digital Outputs M23 (PNP Sourcing)	PSST8M23A	10 to 28.8VDC
† 2 Analog Inputs Voltage (M12)	PSSNAVM12A	0 to 10V ± 10V
† 2 Analog Inputs Current (M12)	PSSNACM12A	4 to 20mA or 0 to 20mA
** 2 Analog Outputs Voltage (M12)	PSSTAVM12A	0 to 10V ± 10V
** 2 Analog Outputs Current (M12)	PSSTACM12A	4 to 20mA or 0 to 20mA

- * IP67 Certified
- Reference the following Documents for Installation Instructions.
† E106P § E109P ** E111P
+ E107P ** E111P
#Can be used with PSSTERM.
See www.parker.com/pneu/isysnet

Valve Driver Modules

32 Point Module – HB, HA, H1, H2, H3	PSSV32A*
24 Output Cable – HB, HA	PS5624P†
25 - 32 Output Cable – HB, HA	PS5632P†
24 Output Cable – H1, H2, H3	PS4024P†

* Reference Document E100P for Installation Instructions.
See www.parker.com/pneu/isysnet

† Isysnet Add-A-Folds assemblies and end plate kits include a valve driver module (PSSV32A) and cable.

HB / HA 24 output manifolds require a PS5624P.

HB / HA 32 output manifolds require a PS5624P + PS5632P.

H1, H2, H3 manifolds require a PS4024P, allowing 21 outputs.

Included in kits:- **PS5620L61P**
PS4020L61CP



PSSV32A

Terminating Module	PSSTERM

Used as the last Terminating Module for a Stand Alone isysnet Assembly.

A PSST8M23A must be located in the isysnet assembly.



PSSTERM

Power Extender Module

24VDC Field Power Module	PSSSE24A	24VDC

A Power Extender Module must be used on every 12th Module in an isysnet assembly. See www.parker.com/pneu/isysnet

Reference Document E105P and PSS-SG001 for configuration instructions. See www.parker.com/pneu/isysnet



PSSSE24A

Bus Extender Cable

1 Meter Cable*	PSSEXT1	24VDC
3 Meter Cable*	PSSEXT3	24VDC

* Requires a PSSSE24 Power Extender Module.

IP67 Certified

Reference the following Documents for Installation Instructions.
E117P

See www.parker.com/pneu/isysnet

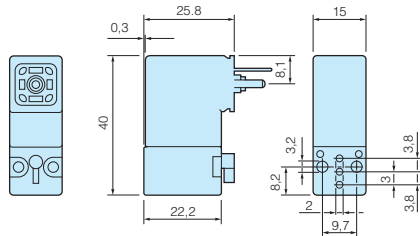


PSSEXT1

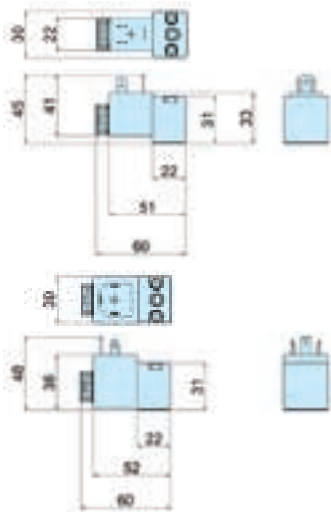
Solenoid dimensions

Cable Plug Dimensions (mm)

Solenoid operators P2E - 15mm

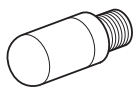


Solenoid operators P2F - CNOMO - 22 x 30mm



Accessories

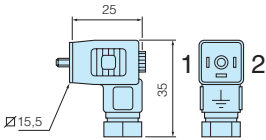
Silencers



Port	Ordercode	Pack Qty
G1/8	P6M-PAB1	10
G1/4	P6M-PAB2	10
G3/8	P6M-PAB3	10
G1/2	P6M-PAB4	10

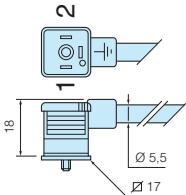
Cable plugs

P8L-C2
P8LC5
P8L-C226C
P8L-C526C
P8L-CA26C
P8L-C221E
P8L-C521E



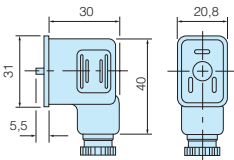
Cable plugs

P8C-C
P8C-C26C
P8C-C21E
P8C-D
P8C-D26C
P8C-D21E



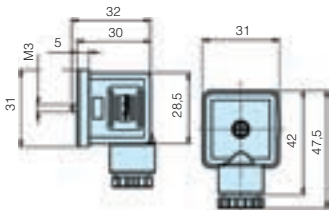
Cable plugs

3EV10V10

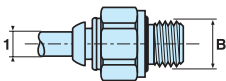


Cable plugs

3EV290V10



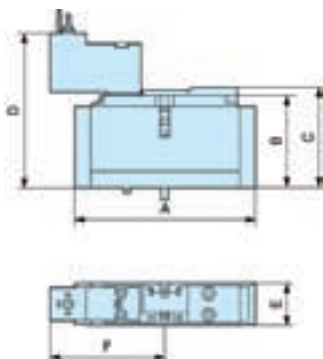
Fittings



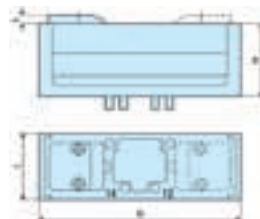
Male connector - BSPP

Tube dia 1	Thread B	Ordercode	Box Qty
4	1/8	F4PMB4-1/8	20
4	1/8	F4PMB4-1/8	20
6	1/8	F4PMB6-1/8	30
8	1/8	F4PB8-1/8	40
6	1/4	F4PMB6-1/4	30
8	1/4	F4PB8-1/4	30
10	1/4	F4PB10-1/4	20
12	1/4	F4PB12-1/4	10
8	3/8	F4PB8-3/8	20
10	3/8	F4PB10-3/8	20
12	3/8	F4PB12-3/8	10
14	3/8	F4PB14-3/8	10
10	1/2	F4PB10-1/2	10
12	1/2	F4PB12-1/2	10
14	1/2	F4PB14-1/2	10

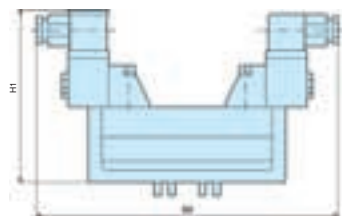
Isomax - Dimensions (mm)



Pneumatically actuated



With P2F solenoids



	A	B	C	D	E	F
Isomax 02	80	41	44,5	67,8	18	51,2
Isomax 01	100	42	45,5	68,8	26	51,2

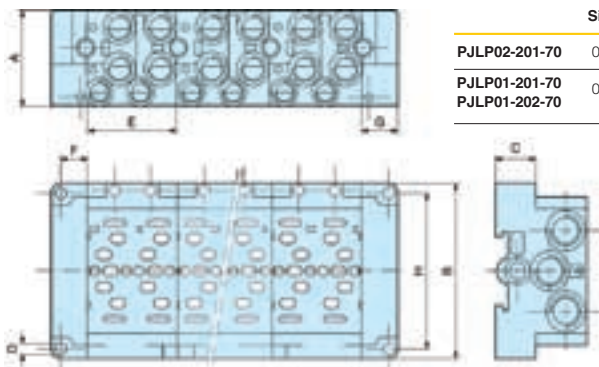
	G	G1	G2	G3	H	H1	I	L
Size 1	120	164	202,5	160	47	119	42	5
Size 2	140	179,5	218	175,5	58,5	130	54	5
Size 3	170	198	235,5	194	71	142,5	68	5

Single subbases side ported



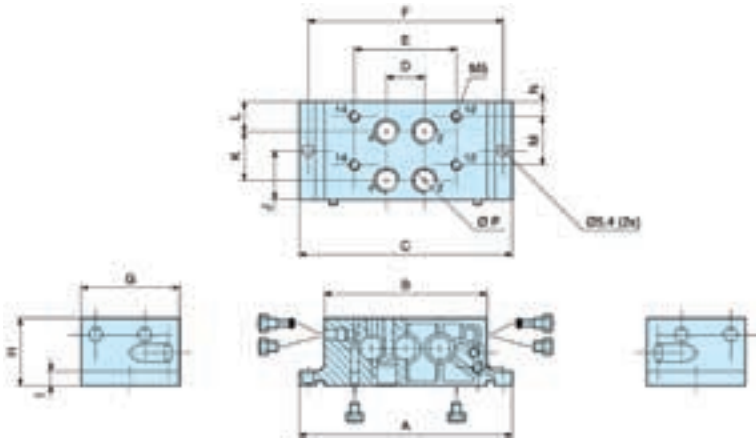
	Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	T
PL02-01-70	02	80	70	16	G1/8	52	8	27	19	5,5	40	17	G1/8	M5	8	8	8	22	13	6
P2V-BS512SS	01	92	80	21,2	G1/8	68	6,5	42	27	5,5	55	22	G1/8	M5	6	11	17	28	14	21

Side ported manifolds for 2 valve positions



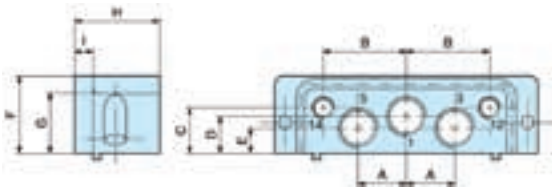
	Size	A	B	C	D	E	F	G	H
PJLP02-201-70	02	38,5	80	12	Ø 4,2	38	14	18	72
PJLP01-201-70	01	55	100	24	Ø 5,5	54	17	22	90
PJLP01-202-70									

Bottom ported manifolds for 2 valve positions



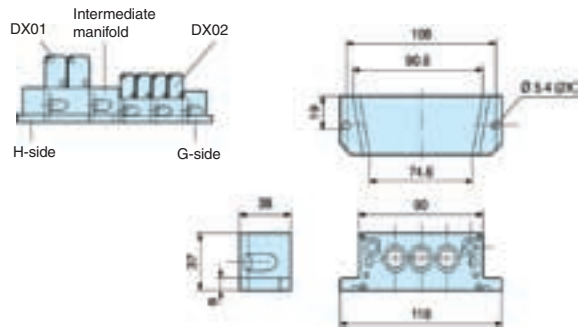
	Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P
P2V-AM511PB	02	102	74	74,6	16	43	92	38	26	7	19	19	11	19	5	G1/8
P2V-BM512PB	01	118	90	90,6	21	56,5	108	54	37	8	27	27	16,5	27	8	G1/4

G and H side end plate bottom ported for above bottom ported manifold



	Size	Port size 1,2,3	Port size 12, 14	A	B	C	D	E	F	G	H	I
P2V-AM512GB and P2V-AM512HB	02	G1/4	G1/8	17	29	21	18,5	9,5	35,5	28	33	7
P2V-BM513GB and P2V-BM513HB	01	G3/8	G1/8	21,5	37	20	16	11	34,5	28	38	8

Transfer plate size 01 to size 02 for above bottom ported manifold



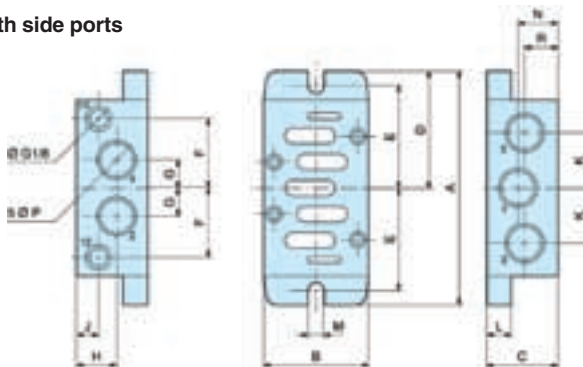
Dimensions

Single subbase with side ports according to VDMA



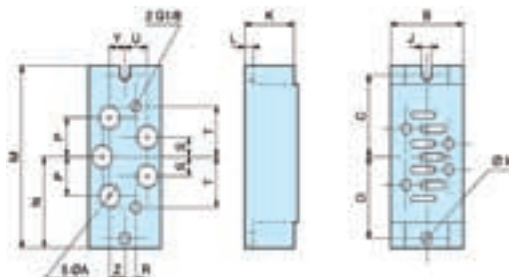
Order code	ISO Size	Port Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
P2N-VS512SD	1	G1/4	21,5	98	110	11	20	5,5	48	32	12	29	10	11	23	G1/4	G1/8
P2N-WS513S	2	G3/8	28	112	124	14	26	6,6	56	40	15	37	13	14	30	G3/8	G1/8
P2N-YS514SD	3	G1/2	34	136	149	17	17	6,6	71	32	16	45	18	17	22	G1/2	G1/8

Single subbase with side ports



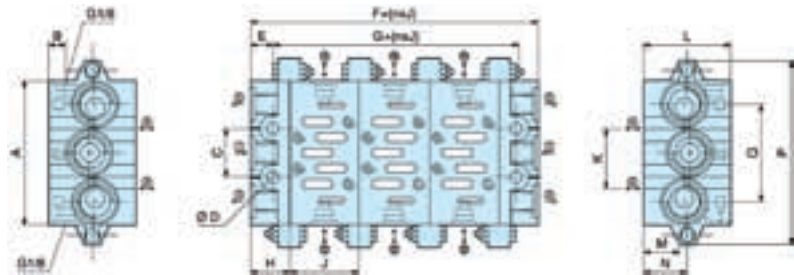
Order code	ISO Size	ØP	A	B	C	D	E	F	G	H	J	K	L	M	N	R
PL1-1/4-70	1	G1/4	110	46	29	55	49	30	11	17,75	17,75	22	6	5,5	17,75	17,75
PL2-3/8-70	2	G3/8	124	56	37	62	55	37	14,5	22,5	14	28	6	5,5	22,5	14,5
P2N-JS516SD	3	G3/4	149	71	60	74,5	68	45	21	33	10	40	18	6,6	37,5	22,5

Single subbase with bottom ports



Order code	A	B	C	D	J	K	L	M	N	P	R	S	T	U	W	Y	Z
PD1-1/4-70	G1/4	46	49	49	5,5	29	6	110	55	22	10	11	30	10	5,5	10	10
PD2-3/8-70	G3/8	56	55	55	5,5	37	6	124	62	29	10	14,5	37	12,5	5,5	12,5	12,5
PD3-1/2-70	G1/2	77	68	68	6,6	32	18	149	74,5	34	10	17	45	17	6,5	17	17

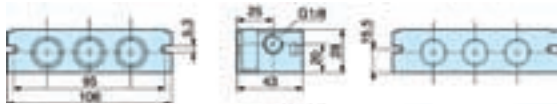
Manifold and end plates according to VDMA (P2N-VM / WM / YM)



ISO Size	Port 1, 3, 5	Port 2, 4	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P
1	G3/8	G1/4	85	8,5	28	7	11	44	22	22	43	26	46	21	24	56	110
2	G1/2	G3/8	100	9	35	9	13	52	26	26	56	30	47	22	24	68	135
3	G1	G1/2	140	10	52	12	15	60	30	30	71	38	56	31	34	104	190

Manifold and end plates with bottom ports "low profile" (P2N-AM..)

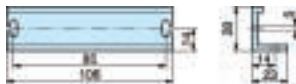
Manifold P2N-AM512MB



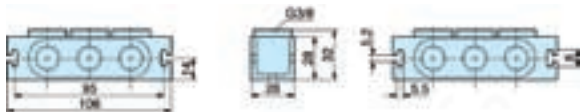
Connecting block P2N-AM513GT



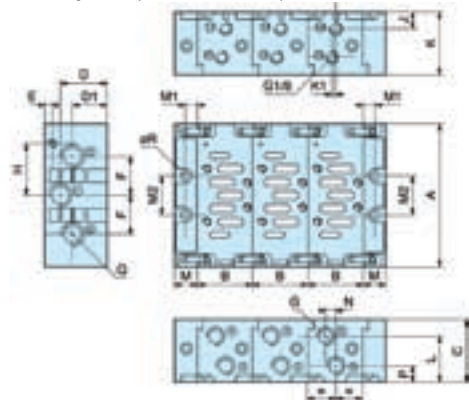
End piece P2N-AM500J



Intermediate supply P2N-AM513BT



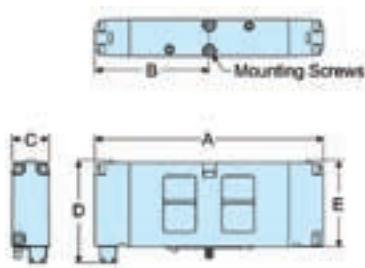
Manifold and end plates with side ports (P2N-EM / FM..)



Order code	A	B	C	D	D1	E	F	G	H	J	K	K1	L	M	M1	M2	N	P	Q	R
P2N-EM ...	110	43	48	35,5	26,5	5,5	28	G1/4	36	15,5	35	3	32	20	11	28	12	12,5	G3/8	6
P2N-FM ...	129	56	60	44,5	35,5	6	34,5	G3/8	45	16	41,5	3	41	24	13	35	12,5	16	G1/2	8

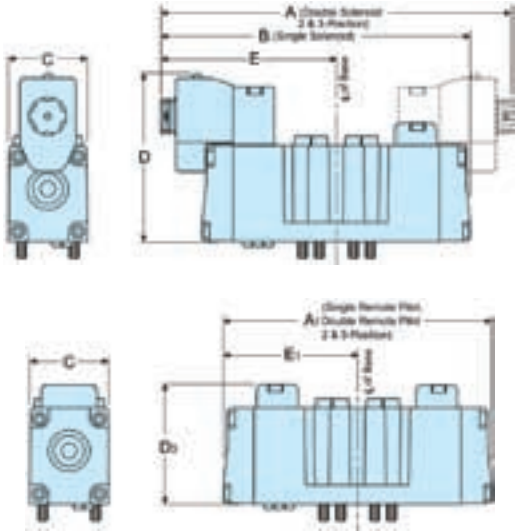
Isysnet Field Bus System - Dimensions

15407-2 Series Valves



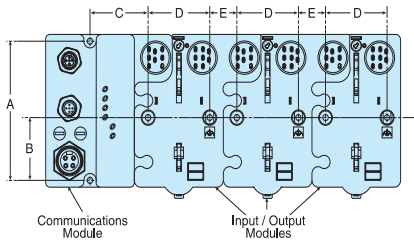
	A	B	C	D	E
HB	113	56	18	50	43
HA	130	65	26	50	42

H1 / H2 / H3 Series Valves 5599-2



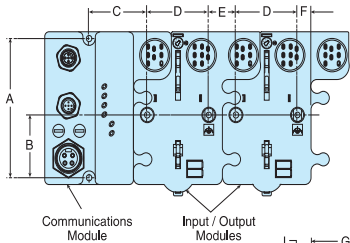
	A	A ₁	B	C	D	D ₁	D ₂	D ₃	D ₄	E	E ₁
H1	186	142	164	42	90	109	109	63.5	63	93	71
H2	212	168	190	55	103	122	116	76		106	84
H3	241	177	209	55	103	122	116	76		121	89

Isysnet Field Bus System - Dimensions



HB-HA

A	B	C	D	E	F
102	46	48	51	22	11



HB-HA

A	B	E	L	G	H
152	137	7,5	106	68	8,4
H ₁	J	K	L	M	P
45,8	4	110	16	137	152
W	W ₁				
40,8	56,8				

H1

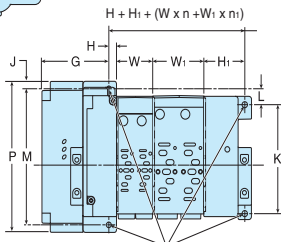
G	H	H ₁	J	K
56	15,9	15,9	8,5	165
P	W			
182	49			

H2

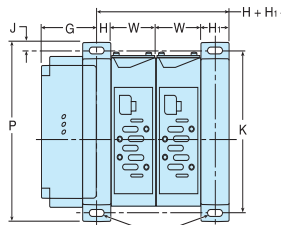
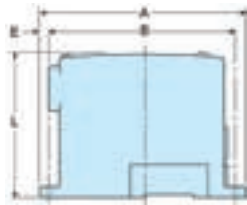
G	H	H ₁	J	K
58	8,4	15	12	215
P	W			
239	56			

H3

G	H	H ₁	J	K
64	24	16,5	15	265
P	W			
295	71			

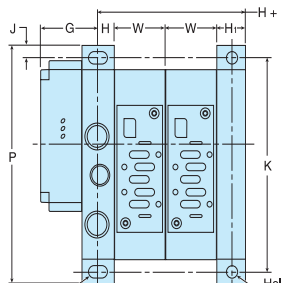


Holes for M6 (or 1/4")
Screws 4 Places



Slots for M6 (or 1/4")
Screws 4 Places

n = Number of H1 Bases
W = Width of H1 Bases

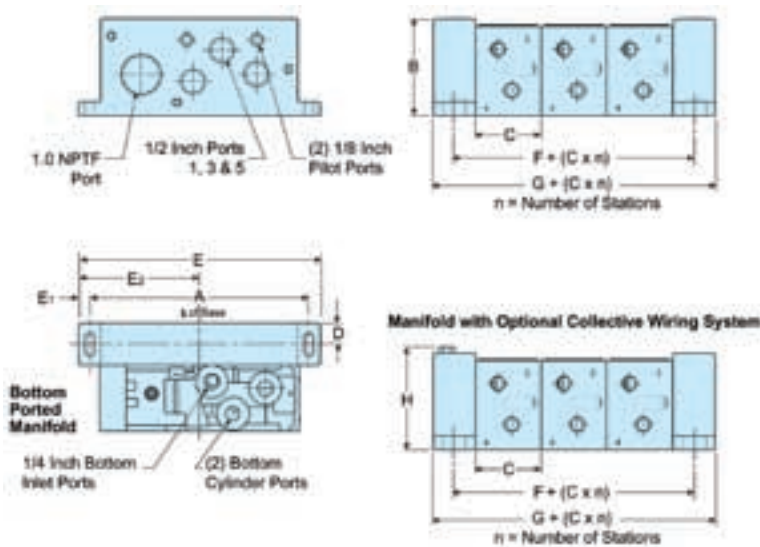


Slots for M10 (or 7/16")
Screws 2 Places

Holes for M10 (or 7/16")
Screws 2 Places

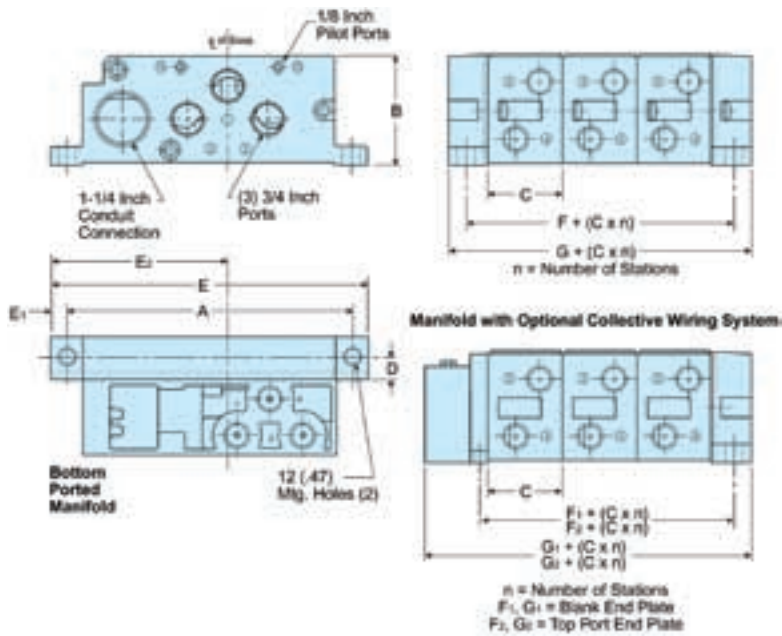
n = Number of H2 / H3 Bases
W = Width of H2 / H3 Bases

H1 5599-2 / 5599-1 Manifold



	A	B	C	D	E	E ₁	E ₂	F	G	H
H1	165	73	49	15.9	182	.84	91	31.8	63.5	76

H2 / H3 5599-2 / 5599-1 Manifold



	A	B	C	D	E	E ₁	E ₂	F	F ₁	F ₂	G	G ₁ *	G ₂ *
H2	215	85	56	15	239	12	134	30	27	33	60	87	99

	A	B	C	D	E	E ₁	E ₂	F	F ₁	F ₂	G	G ₁ *	G ₂ *
H3	265	105	71	17	295	15	159	33	29	41	63	90	114

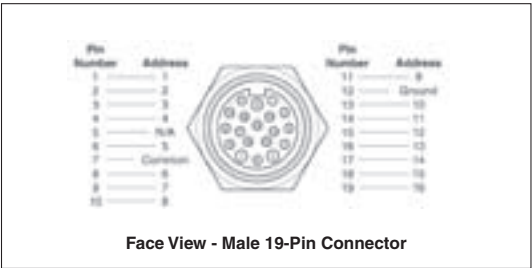
Interconnect Circuit Boards

Maximum Solenoids Energized Simultaneously

HA HB	Voltage code	25-pin D-Sub	19-pin round	Single 12-pin M23	Isysnet	
24 V DC	B9 / G9	24	16	8	32	
120 V AC*	23	24	16	8	32	
H1 H2 H3	Voltage code	25-pin D-Sub	19-pin round	Single 12-pin M23	Isysnet	SAM 3.0
12 V DC	45	13	13	8	N/A	N/A
24 V AC*	42	24	16	8	N/A	N/A
24 V DC	B9	20	16	8	21	4
120 V AC*	23	24	16	8	N/A	N/A

* Not CSA certified for 25-pin, D-Sub option.

19-Pin Round Brad Harrison



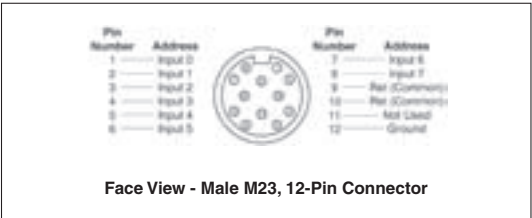
19-Pin Round Cable Specifications

Common Pin "7" is rated for 8 amps. Cable common wire must be greater than total amperage of solenoids on Add-A-Fold assembly.

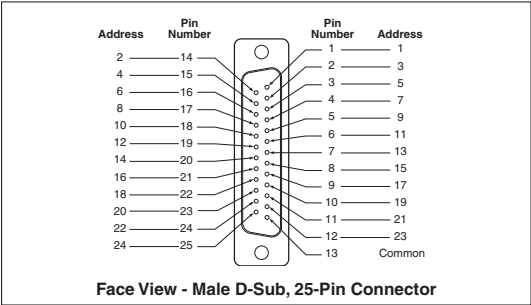
Example:- 8 station manifold, 16 solenoids,
120VAC - 16 x .039 amps = .63 total amp rating.
NEMA 4 rated with properly assembled NEMA 4 rated cable.

Brad Harrison #333030P80M050	16.40 ft. (Female to Male Cable)
Brad Harrison #333030P80M0100	32.80 ft. (Female to Male Cable)

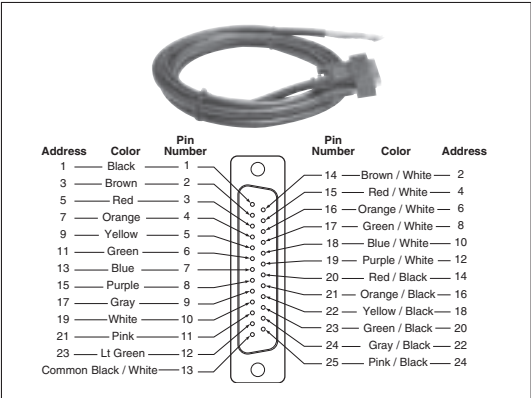
M23, 12-Pin Round Connector (Male)



25-Pin, D-Sub Connector (Male)



25-Pin, D-Sub Cable (Female)

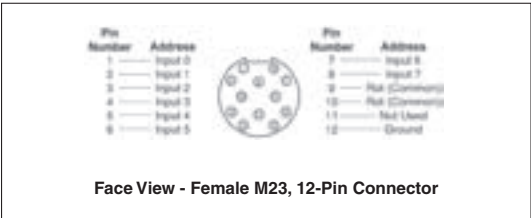


25-Pin, D-Sub Cable Specifications

Common Pin "13" is rated for 3 amps. Common wire rating must be greater than total amperage of all solenoids on a Add-A-Fold assembly.

IP65 rated with properly assembled IP65 rated cable.

M23, 12-Pin Round Connector (Female)



The Viking Xtreme valve range is robust, versatile and combines high performance with compact installation dimensions. Large flow capacity, short change-over times and low change-over pressure are important characteristics of this valve range.

- 4 sizes: G1/8, G1/4, G3/8 and G1/2.
- Wide operating temperature range
- Compact design with good corrosion resistance.
- Wide range of 5/2 and 5/3 versions.
- High and low temperature versions available for transport applications.



Operating information

	P2L-AX	P2L-BX	P2L-CX	P2L-DX
Working pressure:	16 bar	16 bar	12 bar	12 bar
Working temperature, standard				
Air pilot solenoid		-40 °C to +60 °C		
Standard and food version		-10 °C to +50 °C		
Mobile version		-40 °C to +60 °C		
Flow (Qmax):	P2L-AX 19,0 l/s	P2L-BX 38,0 l/s	P2L-CX 72,0 l/s	P2L-DX 78,0 l/s

Pneumatically actuated 5/2 and 5/3 valves

Symbol	Size	Actuator	Return	Order code
	G1/8 G1/4 G3/8 G1/2	Air pilot	Air pilot	P2LAX511PP P2LBX512PP P2LCX513PP P2LDX514PP
	G1/8 G1/4 G3/8 G1/2	Air pilot	Spring	P2LAX511PS P2LBX512PS P2LCX513PS P2LDX514PS
	G1/8 G1/4 G3/8 G1/2	Air pilot Closed centre	Air pilot Self centring	P2LAX611PP P2LBX612PP P2LCX613PP P2LDX614PP
	G1/8 G1/4 G3/8 G1/2	Air pilot Vented centre	Air pilot Self centring	P2LAX811PP P2LBX812PP P2LCX813PP P2LDX814PP
	G1/8 G1/4 G3/8 G1/2	Air pilot Pressure centre	Air pilot Self centring	P2LAX711PP P2LBX712PP P2LCX713PP P2LDX714PP

Lever actuated 5/2 and 5/3 valves

Symbol	Size	Actuator	Return	Order code
	G1/8	Lever	Lever	P2LAX511VV
	G1/8	Lever	Spring	P2LAX511VS
	G1/8	Lever	Lever	P2LAX61122
	G1/8	Lever	Lever	P2LAX81122
	G1/8	Lever	Lever	P2LAX61111
	G1/8	Lever	Lever	P2LAX81111

Electrically actuated 5/2 and 5/3 valves - 15mm solenoid

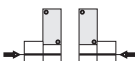
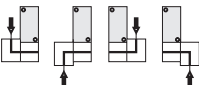
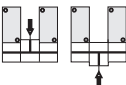
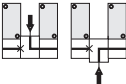
Symbol	Size	Actuator	Return	Order code 15mm solenoid with 24 VDC sol	Order code without 15mm solenoid
	G1/8 G1/4 G3/8 G1/2	Solenoid	Solenoid	P2LAX511EENXB549 P2LBX512EENXB549 P2LCX513EENXB549 P2LDX514EENXB549	P2LAX511EENXXX P2LBX512EENXXX P2LCX513EENXXX P2LDX514EENXXX
	G1/8 G1/4 G3/8 G1/2	Solenoid	Spring	P2LAX511ESNXB549 P2LBX512ESNXB549 P2LCX513ESNXB549 P2LDX514ESNXB549	P2LAX511ESNXXX P2LBX512ESNXXX P2LCX513ESNXXX P2LDX514ESNXXX
	G1/8 G1/4 G3/8 G1/2	Solenoid Closed centre	Solenoid Self centring	P2LAX611EENXB549 P2LBX612EENXB549 P2LCX613EENXB549 P2LDX614EENXB549	P2LAX611EENXXX P2LBX612EENXXX P2LCX613EENXXX P2LDX614EENXXX
	G1/8 G1/4 G3/8 G1/2	Solenoid Vented centre	Solenoid Self centring	P2LAX811EENXB549 P2LBX812EENXB549 P2LCX813EENXB549 P2LDX814EENXB549	P2LAX811EENXXX P2LBX812EENXXX P2LCX813EENXXX P2LDX814EENXXX
	G1/8 G1/4 G3/8 G1/2	Solenoid Pressure centre	Solenoid Self centring	P2LAX711EENXB549 P2LBX712EENXB549 P2LCX713EENXB549 P2LDX714EENXB549	P2LAX711EENXXX P2LBX712EENXXX P2LCX713EENXXX P2LDX714EENXXX

Electrically actuated 5/2 and 5/3 valves - 22mm solenoid

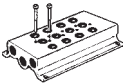
Symbol	Size	Actuator	Return	Order code 22mm solenoid 24 VDC	Order code Without solenoid coil
	G1/8	Solenoid	Solenoid	P2LAX511EENDDB49	P2LAX511EENDDN
	G1/4			P2LBX512EENDDB49	P2LBX512EENDDN
	G3/8			P2LCX513EENDDB49	P2LCX513EENDDN
	G1/2			P2LDX514EENDDB49	P2LDX514EENDDN
	G1/8	Solenoid	Spring	P2LAX511ESNDDDB49	P2LAX511ESNDDN
	G1/4			P2LBX512ESNDDDB49	P2LBX512ESNDDN
	G3/8			P2LCX513ESNDDDB49	P2LCX513ESNDDN
	G1/2			P2LDX514ESNDDDB49	P2LDX514ESNDDN
	G1/8	Solenoid Closed centre	Solenoid Self centring	P2LAX611EENDDB49	P2LAX611EENDDN
	G1/4			P2LBX612EENDDB49	P2LBX612EENDDN
	G3/8			P2LCX613EENDDB49	P2LCX613EENDDN
	G1/2			P2LDX614EENDDB49	P2LDX614EENDDN
	G1/8	Solenoid Vented centre	Solenoid Self centring	P2LAX811EENDDB49	P2LAX811EENDDN
	G1/4			P2LBX812EENDDB49	P2LBX812EENDDN
	G3/8			P2LCX813EENDDB49	P2LCX813EENDDN
	G1/2			P2LDX814EENDDB49	P2LDX814EENDDN
	G1/8	Solenoid Pressure centre	Solenoid Self centring	P2LAX711EENDDB49	P2LAX711EENDDN
	G1/4			P2LBX712EENDDB49	P2LBX712EENDDN
	G3/8			P2LCX713EENDDB49	P2LCX713EENDDN
	G1/2			P2LDX714EENDDB49	P2LDX714EENDDN

Electrically actuated 5/2 - Xtreme duty 16 bar - -40°C to +60°C. P2LAX/P2LBX 16 bar and P2LCX/P2LDX 12 bar

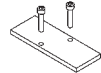
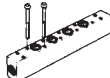
Symbol	Size	Actuator	Return	Order code 22mm solenoid 24 VDC	Order code Without solenoid coil
	G1/8	Solenoid	Solenoid Low temp.	P2LAX511EEHDDDB49	P2LAX511EEHDDN
	G1/4			P2LBX512EEHDDDB49	P2LBX512EEHDDN
	G3/8			P2LCX513EEHDDDB49	P2LCX513EEHDDN
	G1/2			P2LDX514EEHDDDB49	P2LDX514EEHDDN
	G1/8	Solenoid	Spring Low temp.	P2LAX511ESHDDDB49	P2LAX511ESHDDN
	G1/4			P2LBX512ESHDDDB49	P2LBX512ESHDDN
	G3/8			P2LCX513ESHDDDB49	P2LCX513ESHDDN
	G1/2			P2LDX514ESHDDDB49	P2LDX514ESHDDN

Accessories P2LAX	Connection alternatives	Type	Weight kg	Order code
		Multiple manifold including seals, mounting screws, and guiding pins.	0,11	9121658060
		Connection block S including seals, mounting screws, and guiding pins. G1/4	0,15	9121658064
		Connection block L including seals, mounting screws, and guiding pins. G1/4	0,15	9121658061
		End cover including seals, mounting screws, and guiding pins.	0,16	9121658066
		Intermediate block T including seals, mounting screws, and guiding pins. G1/4	0,17	9121658062
		Intermediate block L including seals, mounting screws, and guiding pins. G1/4	0,17	9121658065
		Blanking plate including seals, mounting screws.	0,05	9121658063

Accessories P2LAX

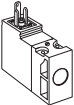
Type	Weight kg	Order code
 Manifold bar, P2LA including seals, mounting screws. G3/8 For 4 valves For 6 valves For 8 valves For 10 valves For 12 valves For 14 valves	0,48 0,63 0,80 0,98 1,10 1,23	9121658075 9121658076 9121658077 9121658078 9121658079 9121658099
 Blanking plate, P2LA for Manifold bar	0,05	9121658063
 Pressure bar, P2LA for common air supply incl. O-rings and mounting screws. G1/4 For 2 valves For 4 valves For 6 valves For 8 valves	0,13 0,20 0,26 0,33	9121658070 9121658071 9121658072 9121658073
 Blanking plate, P2LA for Pressure bar	0,05	9121658074
 Assembly screws, P2LA in stainless steel for valve	0,02	9121658043
 Assembly screws, P2LA in stainless steel for blanking plate	0,01	9121658044
 O-ring kit, P2LA O-rings between valve and manifold bar/ Pressure bar	0,01	9121658046

Accessories P2LBX

Type	Weight kg	Order code
 Manifold bar, P2LB, (not for P2LB with external air supply to solenoid valves) incl. fasteners and O-ring. G3/8 For 2 valves For 4 valves For 6 valves For 8 valves For 10 valves	0,69 1,13 1,56 2,00 2,45	9121594805X 9121594806X 9121594807X 9121594808X 9121594812X
 Blanking plate, P2LB for Manifold bar	0,10	9121594809X
 Pressure bar, P2LB for common air supply incl. O-rings and banjo-bolts. G3/8 For 2 valves For 4 valves For 6 valves For 8 valves For 10 valves	0,38 0,53 0,68 0,83 0,99	9127113301X 9127113302X 9127113303X 9127113304X 9127113305X
 Blanking plug, P2LB for Pressure bar. G1/4	0,02	9127113306X

Solenoid Operators - Electrical connection EN175301-803 C/ISO15217 (Ex DIN 43650C)

Solenoids 15 mm NC, standard (Note! Mounting screws included in basic valve)

Voltage	Weight Kg	Order code Without manual override	Weight Kg	Order code Override, blue, non locking flush	Weight Kg	Order code Override, yellow, locking flush
 12 VDC	0,038	P2E-KV32B0	0,038	P2E-KV32B1	0,038	P2E-KV32B2
24 VDC	0,038	P2E-KV32C0	0,038	P2E-KV32C1	0,038	P2E-KV32C2
48 VDC	0,038	P2E-KV32D0	0,038	P2E-KV32D1	0,038	P2E-KV32D2
24 VAC 50Hz	0,038	P2E-KV31C0	0,038	P2E-KV31C1	0,038	P2E-KV31C2
48 VAC 50/60Hz	0,038	P2E-KV34D0	0,038	P2E-KV34D1	0,038	P2E-KV34D2
115 VAC 50Hz/	0,038	P2E-KV31F0	0,038	P2E-KV31F1	0,038	P2E-KV31F2
120 VAC 60Hz						
230 VAC 50Hz/	0,038	P2E-KV31J0	0,038	P2E-KV31J1	0,038	P2E-KV31J2
240 VAC 60Hz						

In accordance with the EU Machine Directive, EN 983, solenoid valves with manual override should have spring-return operating arms for safety.

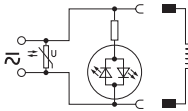
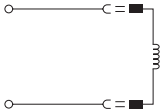
Solenoid coils for 22mm solenoid operators

Voltage	Order code Form B	Weight (Kg)
12V 60Hz	P2FCB440	0.093
24V 50/60Hz	P2FCB442	0.093
12V DC	P2FCB445	0.093
12V DC Mobile	P2FCB447	0.093
24v DC Mobile	P2FCB448	0.093
24V DC	P2FCB449	0.093
48V DC	P2FCB451	0.093
110V/50Hz, 120V/60Hz	P2FCB453	0.093
230V/50Hz, 230V/60Hz	P2FCB457	0.093

Note: Mobile solenoids are only suitable for Viking Xtreme valves with 'H' specification having 0,8/1,0 operator type P2FP13H4D

Solenoid Connectors / Cable Plugs EN175301-803

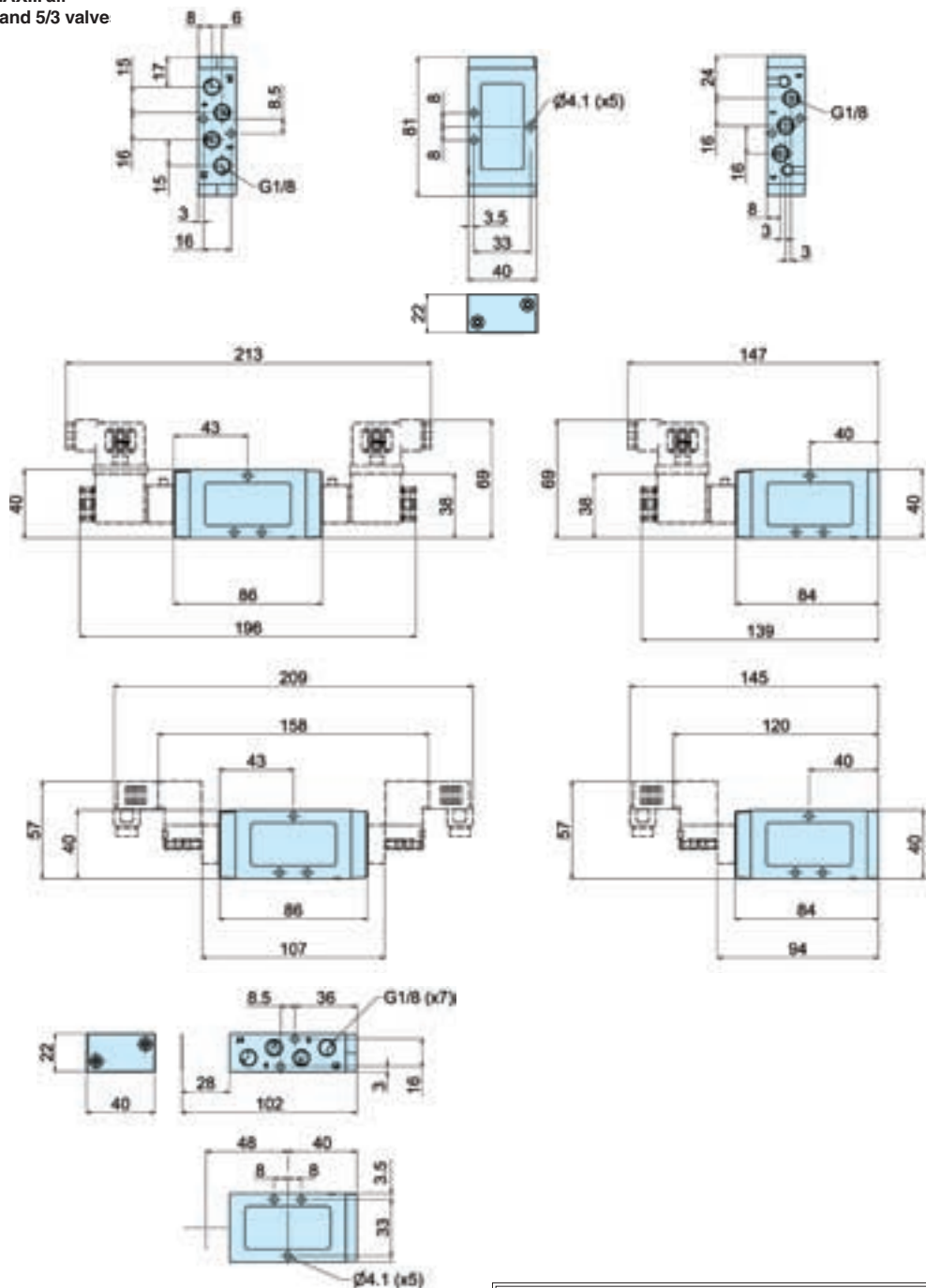
	Description	Order code 15mm Form C/ISO15217	Order code 22mm Industrial Form B
With large headed screw suitable for mounting in inaccessible or recess position 	Standard IP65	P8C-C	
	24V DC LED and protection IP65	P8C-C26C	
	110V AC LED and protection IP65	P8C-C21E	
With standard screw 	Standard IP65 without flying lead	P8C-D	3EV10V10
	With LED and protection 24V AC/DC	P8C-D26C	3EV10V20-24
	With LED and protection 110V AC	P8C-D21E	3EV10V20-110
	With LED and protection 230V AC		3EV10V20-230
With cable 	Standard with 2m cable IP65	P8L-C2	
	Standard with 5m cable IP65	P8L-C5	
	24V AC/DC, 2m cable LED and protection IP65	P8L-C226C	
	24V AC/DC, 5m cable LED and protection IP65	P8L-C526C	3EV10V20-24L5
	24V AC/DC, 10m cable LED and protection IP65	P8L-CA26C	
	110V AC/DC, 2m cable LED and protection IP65	P8L-C221E	
	110V AC/DC, 5m cable LED and protection IP65	P8L-C521E	3EV10V20-110L5
	230V AC, 5m cable LED and protection IP65		3EV10V20-230L5



P8C-C	P8C-D26C	P8L-C226C
P8C-D	P8C-D21E	P8L-C526C
P8L-C2	P8C-C26C	P8L-CA26C
P8L-C5	P8C-C21E	P8L-C221E
3EV10V10		P8L-C521E
	3EV10V20-24	3EV10V20-24L5
	3EV10V20-110	3EV10V20-110L5
	3EV10V20-230	3EV10V20-230L5

Dimensions

P2LAX... all
5/2 and 5/3 valve

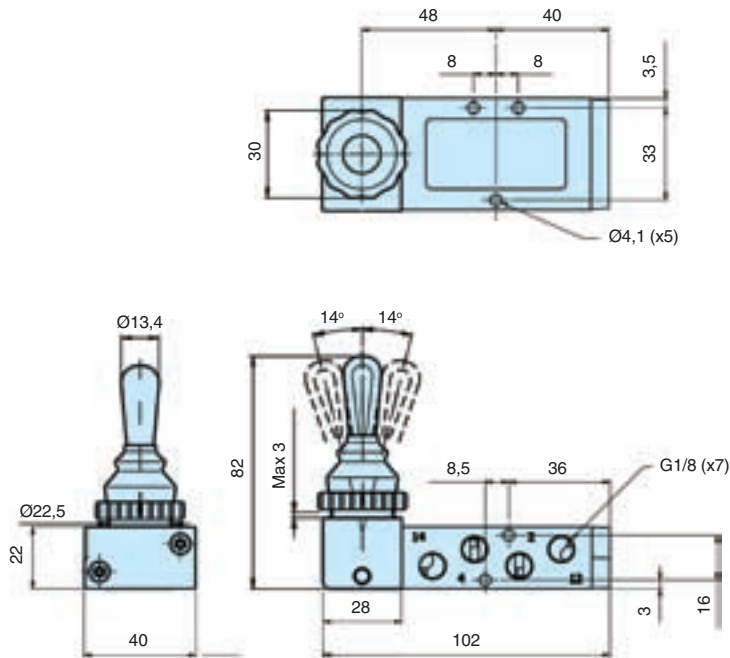


Solenoid valves

Solenoid valves and cable plugs must be ordered separately.
One pilot valve is required for each E in the valve order code.

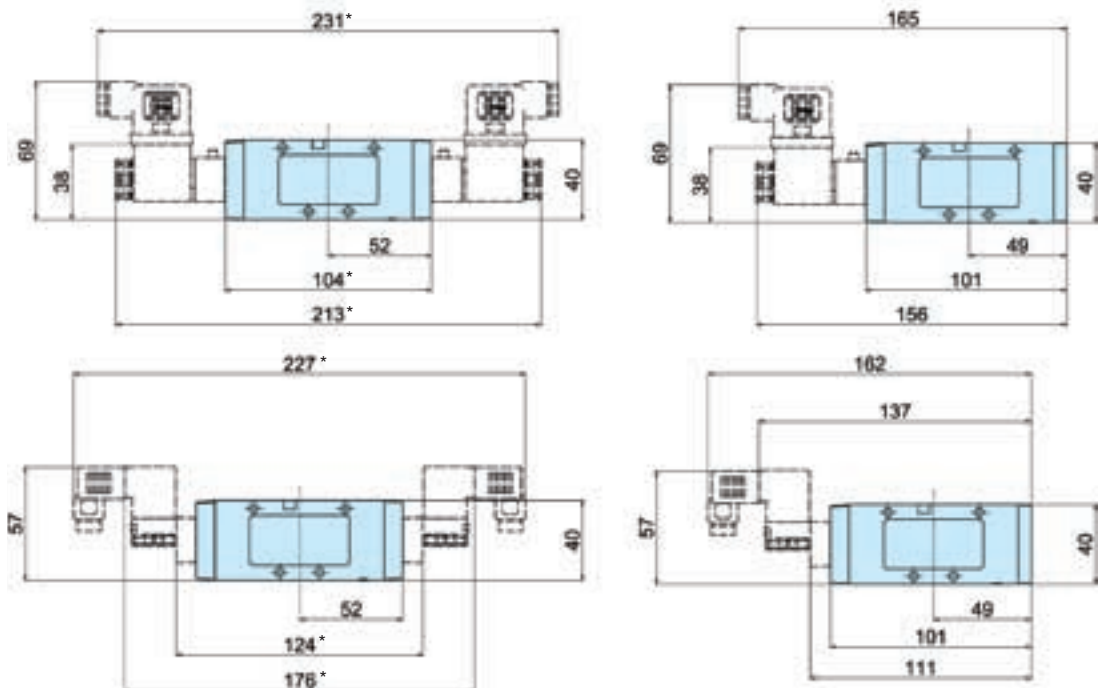
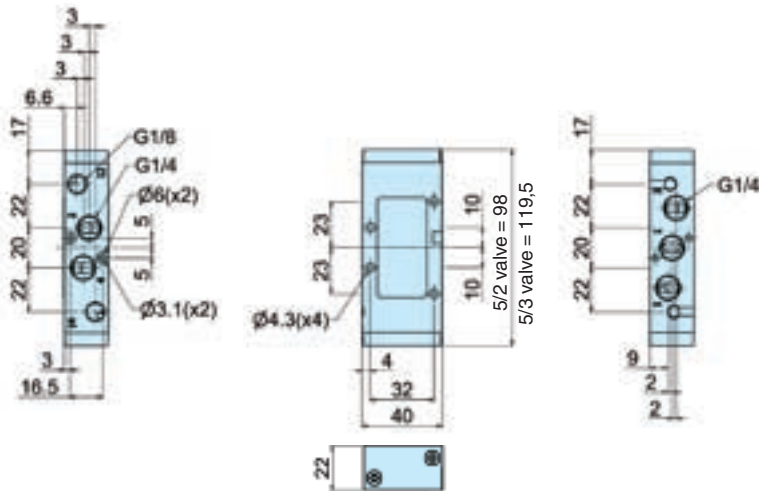
Dimensions

P2LAX - Lever operated directional control valves



Dimensions

**P2LBX... all
5/2 and 5/3 valves**



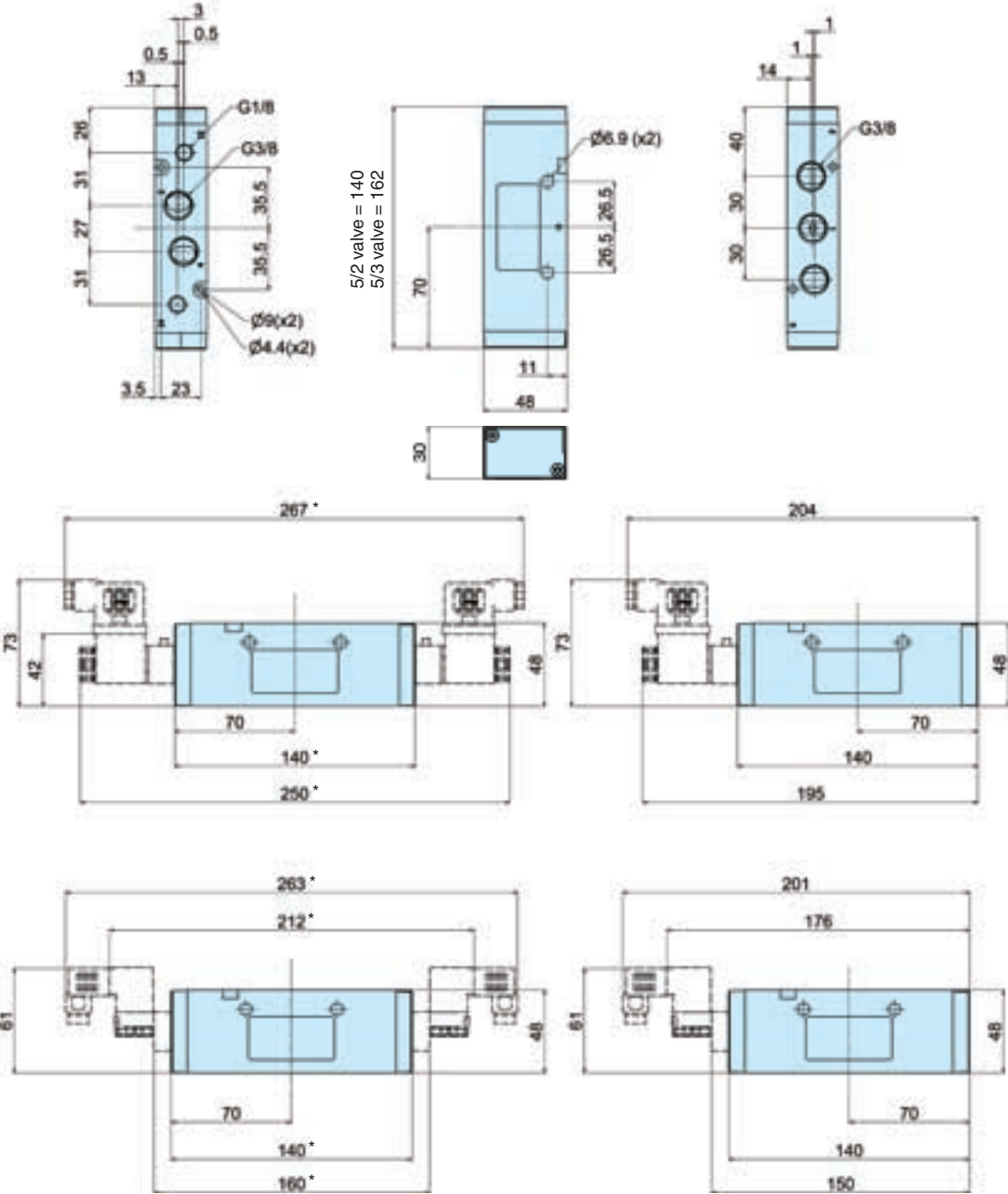
* **Note:** 5/3 valves - add 21.5mm

Solenoid valves

Solenoid valves and cable plugs must be ordered separately. One pilot valve is required for each E in the valve order code.

Dimensions

P2LCX... all
5/2 and 5/3 valves



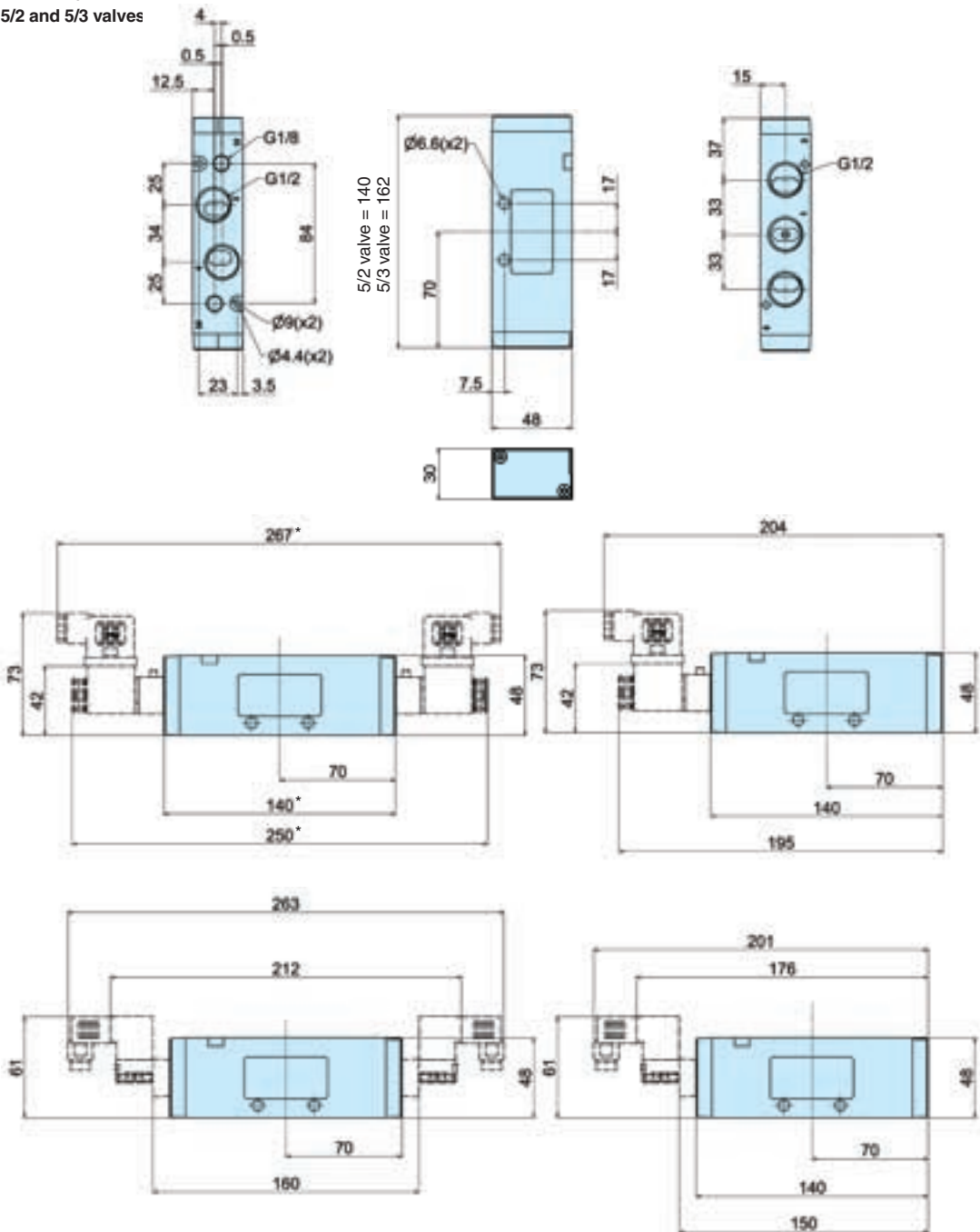
* Note: 5/3 valves - add 22.0mm

Solenoid valves

Solenoid valves and cable plugs must be ordered separately.
One pilot valve is required for each E in the valve order code.

Dimensions

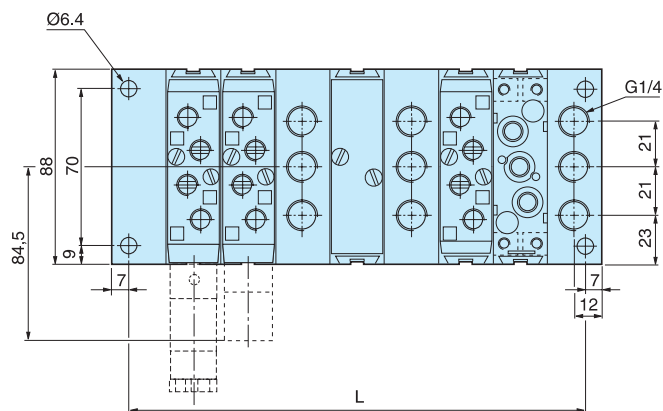
P2LDX... all
5/2 and 5/3 valves



* Note: 5/3 valves - add 22.0mm

Solenoid valves
Solenoid valves and cable plugs must be ordered separately.
One pilot valve is required for each E in the valve order code.

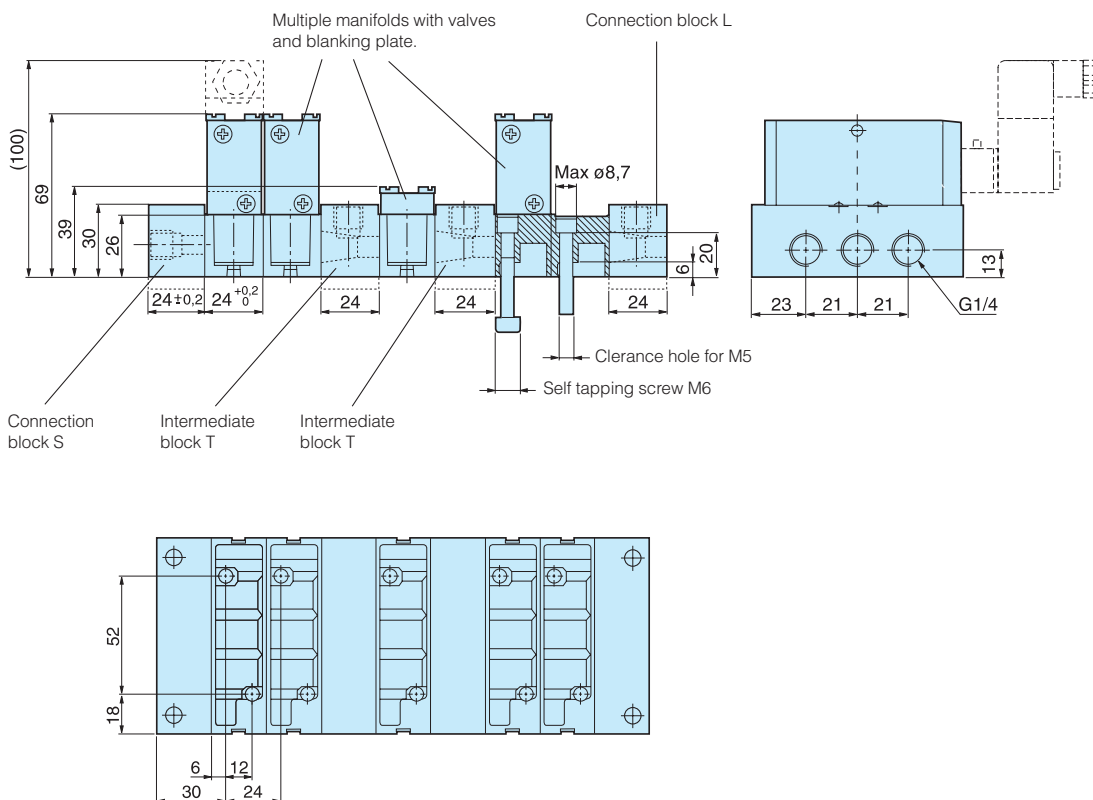
Dimensions



$$L = 34 + (\text{Number of manifolds and Intermediate blocks} \times 24)$$

Connection block L and intermediate blocks L and T can be turned so that connection can be made from above or below.

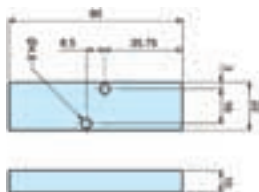
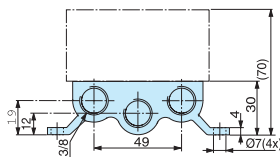
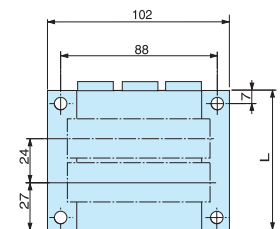
Multiple manifolds must be fitted with the top indication line (a 10 mm long line) facing the same side on all manifolds.



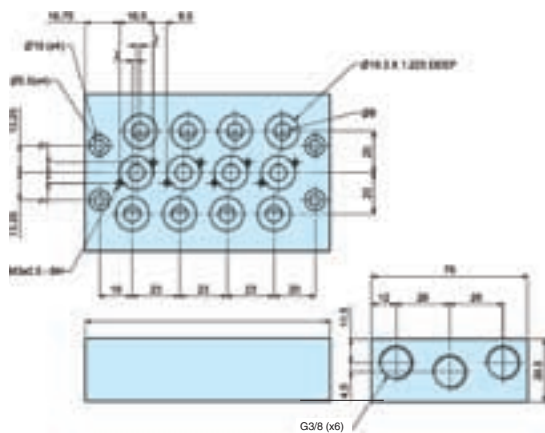
Dimensions

Manifold bar, P2LA

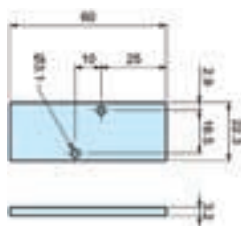
No. of valves	L mm
4	126
6	174
8	222
10	270
12	318
14	366



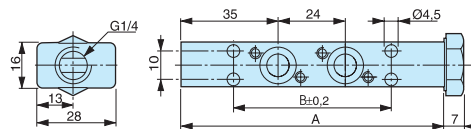
Manifold bar, P2LB



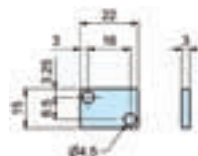
No. of valves	L mm
2	74
4	122
6	170
8	218
10	266



Pressure bar, P2LA

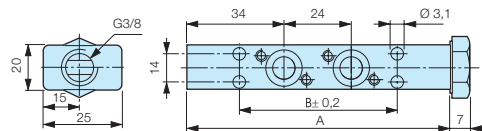


Pressure bar, P2LA

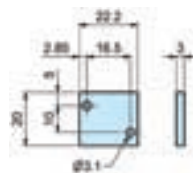


No. of valves	A mm	B mm
2	94	56
4	142	104
6	190	152
8	238	200

Pressure bar, P2LB



Blanking plug, P2LB



No. of valves	A mm
2	92
4	140
6	188
8	236
10	284

B Series high performance industrial valves

High performance metal bodied industrial valves with air pilot or solenoid actuation. Featuring the 'Wear Compensating Seal System' these valves have integral mounting holes and an inlet exhaust manifold option.



- 3 sizes: 1/8", 1/4" and highflow 1/4"
- Compact size
- Inlet-exhaust-mounting facility
- Fast response, high flow
- Integrated mounting holes
- Wear compensating seal system
- DIN rail mountable manifolds

Operating information

Working pressure	1,5 to 10 bar
Working temperature	-10 °C to +50 °C
Port size	B3 : G1/8, B4 : G1/4, B5 : G1/4
Flow (Qn):	B3 960 l/min
	B4 1170 l/min
	B5 1440 l/min

For technical information see CD

Main data for Directional control valves, B3 Series

Symbol	Actuator	Return	Signal pressure min, bar at 6 bar actua./return	Changeover time, ms at 6 bar actua./return	Weight Kg	Voltage	Order code	Qty
Pneumatically actuated 3/2 valves								
	Air	Differential air	1,4/-	16/17	0,07		B3K5000XXH	1
	Air	Spring return	3,0/-	20/18	0,07		B3U5000XXH	1
	Air	Air	1,4/-	2/2	0,08		B3M5000XXH	1
Pneumatically actuated 5/2 and 5/3 valves								
	Air	Differential air	1,4/-	16/17	0,09		B335000XXH	1
	Air	Spring return	3,0/-	20/18	0,09		B3P5000XXH	1
	Air	Air	1,4/1,4	2/2	0,10		B345000XXH	1
	Air	Self centring	3,0/3,0	12/12	0,10		B385000XXH	1
	Air	Self centring	3,0/3,0	12/12	0,10		B395000XXH	1
	Air	Self centring	3,0/3,0	12/12	0,10		B305000XXH	1

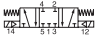
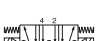
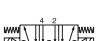
* Solenoid and cable plug (must be ordered separately see next page)

** 2 Solenoids and cable plugs (must be ordered separately see next page)

 Indicates stocked product.

B Series high performance industrial valves

Main data for Directional control valves, B3 Series (G1/8 threaded ports)

Symbol	Actuator	Return	Signal pressure min, bar at 6 bar actua./return	Changeover time, ms at 6 bar actua./return	Weight Kg	Voltage	Order code	Qty		
Electrically actuated 3/2 valves										
		Electric	Differential air	1,4/-	12/14	0,12 0,08	24 VDC Less solenoid	B3G5BB549H B3G5BXXXXXH	1 1	
		Electric	Spring return	3,0/-	22/28	0,12 0,08	24 VDC Less solenoid	B3R5BB549H B3R5BXXXXXH	1 1	
		Electric	Air	1,4/1/4	9/3	0,13 0,09	24 VDC Less solenoid	B3S5BB549H B3S5BXXXXXH	1 1	
		Electric	Electric	1,4/1/4	8/8	0,13 0,09	24 VDC Less solenoid	B3J5BB549H B3J5BXXXXXH	1 1	
Electrically actuated 5/2 valves										
		Electric	Differential	1,4/-	12/14	0,12 0,09	24 VDC Less solenoid	B315BB549H B315BXXXXXH	1 1	
		Electric	Spring return	3,0/-	22/28	0,12 0,09	24 VDC Less solenoid	B3T5BB549H B3T5BXXXXXH	1 1	
		Electric	Air	1,4/1/4	9/3	0,14 0,10	24 VDC Less solenoid	B3A5BB549H B3A5BXXXXXH	1 1	
		Electric	Electric	1,4/1/4	8/8	0,19 0,10	24 VDC Less solenoid	B325BB549H B325BXXXXXH	1 1	
Electrically actuated 5/3 valves										
		Electric	Closed centre	Self centring	3,0/3,0	12/12	0,18 0,09	24 VDC Less solenoid	B355BB549H B355BXXXXXH	1 1
		Electric	Vented centre	Self centring	3,0/3,0	12/12	0,18 0,09	24 VDC Less solenoid	B365BB549H B365BXXXXXH	1 1
		Electric	Pressurised	Self centring	3,0/3,0	0,10 0,09	24 VDC Less solenoid	B375BB549H B375BXXXXXH	1 1	

Internal air supply to differential pilots and solenoids via port 1

Valves supplied with solenoid operators include standard P8C-D connector

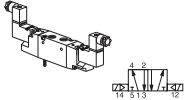
B Series high performance industrial valves

Main data for Directional control valves, B4 Series (G1/4 threaded ports)

Symbol	Actuator	Return	Signal pressure min, bar at 6 bar actua./return	Changeover time, ms at 6 bar actua./return	Weight Kg	Voltage	Order code	Qty
Pneumatically actuated 3/2 valves								
	Air	Differential air	1,5/-	34/45	0,163		B4K6000XXF	1
	Air	Spring return	3,0/-	32/48	0,16		B4U6000XXF	1
	Air	Air	1,5/1,5	15/17	0,177		B4M6000XXF	1
Pneumatically actuated 5/2 and 5/3 valves								
	Air	Differential air	1,5/-	34/45	0,184		B436000XXF	1
	Air	Spring return	3,0/-	32/48	0,19		B4P6000XXF	1
	Air	Air	1,5/1,5	15/17	0,198		B446000XXF	1
	Air Closed centre	Air Self centring	3,0/3,0	16/19	0,204		B486000XXF	1
	Air Vented centre	Air Self centring	3,0/3,0	16/19	0,204		B496000XXF	1
	Air Pressurised centre position	Air Self centring	3,0/3,0	16/19	0,204		B406000XXF	1
Electrically actuated 3/2 valves								
	Electric	Differential air	1,5/-	34/45	0,206 0,157	24 VDC Less solenoid	B4G6AB549F B4G6AXXXXF	1 1
	Electric	Spring return	3,0/-	36/40	0,210 0,161	24 VDC Less solenoid	B4R6AB549F B4R6AXXXXF	1 1
	Electric	Air	1,5/1,5	15/17	0,220 0,170	24 VDC Less solenoid	B4S6AB549F B4S6AXXXXF	1 1
	Electric	Electric	1,5/1/5	15/17	0,262 0,164	24 VDC Less solenoid	B4J6AB549F B4J6AXXXXF	1 1
Electrically actuated 5/2 valves								
	Electric Air	Differential Air	1,5/-	34/45	0,227 0,178	24 VDC Less solenoid	B416AB549F B416AXXXXF	1 1
	Electric Air	Spring return	3,0/-	36/40	0,227 0,178	24 VDC Less solenoid	B4T6AB549F B4T6AXXXXF	1 1
	Electric	Air	1,5/1/5	15/17	0,241 0,192	24 VDC Less solenoid	B4A6AB549F B4A6AXXXXF	1 1

B Series high performance industrial valves

Main data for Directional control valves, B4 Series (G1/4 threaded ports)

Symbol	Actuator	Return	Signal pressure min, bar at 6 bar actua./return	Changeover time, ms at 6 bar actua./return	Weight Kg	Voltage	Order code	Qty
Electrically actuated 5/2 and 5/3 valves								
	Electric	Electric	1,5/1,5	15/15	0,283	24 VDC	B426AB549F	1
					0,185	Less solenoid	B426AXXXXF	1
	Electric	Electric	3,0/3,0	16/18	0,289	24 VDC	B456AB549F	1
	Closed centre position	Self centring			0,191	Less solenoid	B456AXXXXF	1
	Electric	Electric	3,0/3,0	16/18	0,289	24 VDC	B466AB549F	1
	Vented centre position	Self centring			0,191	Less solenoid	B466AXXXXF	1
	Electric	Electric	3,0/3,0	16/18	0,289	24 VDC	B476AB549F	1
	Pressurised centre position	Self centring			0,191	Less solenoid	B476AXXXXF	1

Internal air supply to differential pilots and solenoids via port 1

Valves supplied with solenoid operators include standard P8C-D connector

B Series high performance industrial valves

Main data for Directional control valves, B5 Series (G1/4 threaded ports)

Symbol	Actuator	Return	Signal pressure min, bar at 6 bar actua./return	Changeover time, ms at 6 bar actua./return	Weight Kg	Voltage	Order code	Qty
Electrically actuated 3/2 valves								
	Electric	Air/Spring Assisted	2,4/2,4	24/26		24 VDC Less solenoid coil	B5V6BCB49C	1
							B5V6BCNXXC	1
	Electric	Electric	1,5/1/5	15/17		24 VDC Less solenoid coil	B5J6BCB49C	1
							B5J6BCNXXC	1
Electrically actuated 5/2 valves								
	Electric	Air/Spring Assisted	2,4/2,4	24/26		24 VDC Less solenoid coil	B5E6BCB49C	1
							B5E6BCNXXC	1
Electrically actuated 5/2 valves								
	Electric	Electric	1,5/1,5	15/15	0,283 0,185	24 VDC Less solenoid	B526BCB49C	1
							B526BCNXXC	1
	Electric	Closed centre Self centring position	3,0/3,0	16/18	0,289 0,191	24 VDC Less solenoid	B556BCB49C	1
							B556BCNXXC	1
	Electric	Vented centre Self centring position	3,0/3,0	16/18	0,289 0,191	24 VDC Less solenoid	B566BCB49C	1
							B566BCNXXC	1
	Electric	Pressurised Self centring centre position	3,0/3,0	16/18	0,289 0,191	24 VDC Less solenoid	B576BCB49C	1
							B576BCNXXC	1

Internal air supply to differential pilots and solenoids via port 1

B Series high performance industrial valves

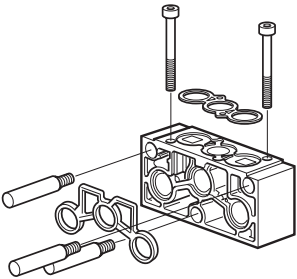
Inlet Exhaust Manifolds for B3 series valves

Standard Base without Flow Controls

Each kit contains:

- 1 pcs Manifold Base
- 2 pcs Mounting screws and nuts
- 3 pcs Tie Rods
- 1 pcs Body-to-base Gasket and
- 1 pcs Base-to-Base Gasket

		Order code	Qty
Manifold Base	3/2 =	PS2948F	1
Kit	5/2 =	PS2917F	1



End plates

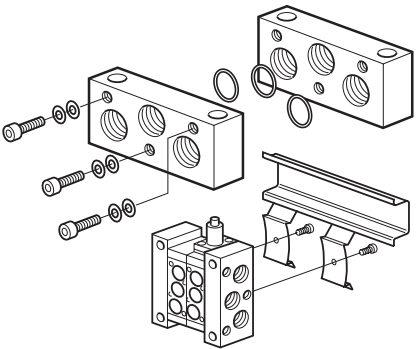
Standard End Plates may be used with either of above Manifold Bases

Each kit contains:

- 1 right and 1 left End Plate
- 3 pcs O-Rings
- 3 pcs Blanking Plugs
- 3 pcs Socket Head Cap Screws
- 3 pcs Flat Washers
- 3 pcs Lockwashers

		Order code	Qty
Manifold End	3/2 =	PS2951F	1
plate kit	5/2 =	PS2916F	1

		Order code	Qty
DIN rail mounting		PS2970F	1
kit for IEM manifold			



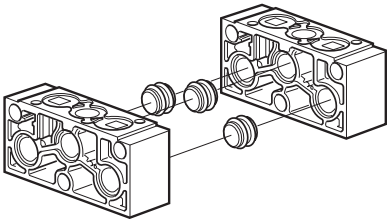
Isolator Plug Kit

Used to isolate the 1, 3 or 5 gallery between two Manifold Bases

Each kit contains:

- 3 pcs Isolator Plugs complete with O-rings.

		Order code	Qty
Isolator Plug Kit		PS2919F	1



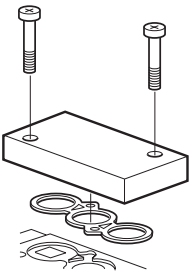
Manifold Blanking Plate

Each kit contains:

- 1 pcs Cover Plate
- 2 pcs Mounting Screws
- 1 pcs Gasket

Used to blank off unused stations.

		Order code	Qty
Manifold	3/2 =	PS2968F	1
Blanking Plate	5/2 =	PS2969F	1



B Series high performance industrial valves

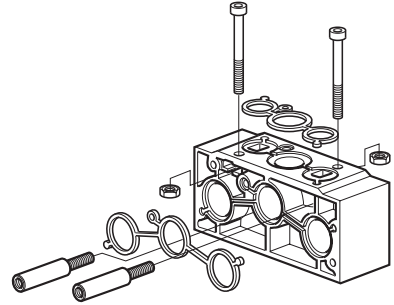
Inlet Exhaust Manifolds for B4 series valves

Standard Base without Flow Controls

Each kit contains:

- 1 pcs Manifold Base
- 2 pcs Mounting screws and nuts
- 2 pcs Tie Rods
- 1 pcs Body-to-base Gasket and
- 1 pcs Base-to-Base Gasket

	Order code	Qty
Manifold Base Kit 3/2 =	PS4548F	1
5/2 =	PS4517F	1



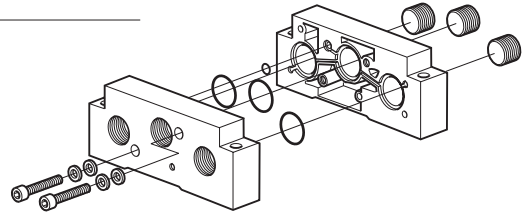
End plates

Standard End Plates may be used with either of above Manifold Bases

Each kit contains:

- 1 right and 1 left End Plate
- 3 pcs O-Rings
- 3 pcs Blanking Plugs
- 2 pcs Socket Head Cap Screws
- 2 pcs Flat Washers
- 2 pcs Lockwashers

	Port Size	Order code	Qty
Manifold End plate kit 3/8 BSP 3/2 =	3/2 =	PS4551F	1
3/8 BSP 5/2 =	5/2 =	PS4516F	1



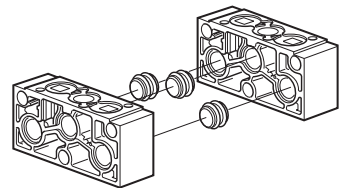
Isolator Plug Kit

Used to isolate the 1, 3 or 5 gallery between two Manifold Bases

Each kit contains:

- 3 pcs Isolator Plugs complete with O-rings

	Order code	Qty
Isolator Plug kit	PS4519F	1

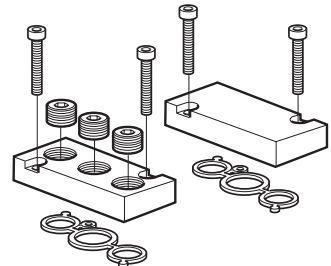


Manifold Blanking plate

Each kit contains:

- 1 pcs Cover Plate
 - 2 pcs Mounting Screws
 - 1 pcs Gasket
- Used to blank off unused stations.

	Order code	Qty
Manifold 3/2 =	PS4568F	1
Blanking plate 5/2 =	PS4569F	1



B Series high performance industrial valves

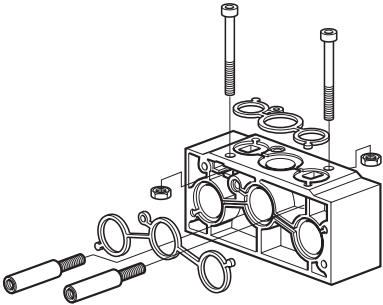
Inlet Exhaust Manifolds for B5 series valves

Standard Base without Flow Controls

Each kit contains:

- 1 pcs Manifold Base
- 2 pcs Mounting screws and nuts
- 2 pcs Tie Rods
- 1 pcs Body-to-base Gasket and
- 1 pcs Base-to-Base Gasket

	Order code	Qty
Manifold Base Kit	PS2817P	1



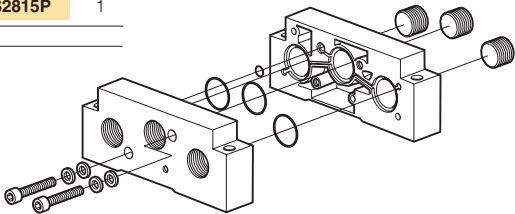
End plates

Standard End Plates may be used with either of above
Manifold Bases

Each kit contains:

- 1 right and 1 left End Plate
- 3 pcs O-Rings
- 3 pcs Blanking Plugs
- 2 pcs Socket Head Cap Screws
- 2 pcs Flat Washers
- 2 pcs Lockwashers

	Port Size	Order code	Qty
Manifold End plate kit	G3/8	PS2815P	1



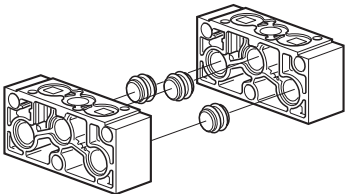
Isolator Plug Kit

Used to isolate the 1, 3 or 5 gallery
between two Manifold Bases

Each kit contains:

- 3 pcs Isolator Plugs complete
with O-rings

	Order code	Qty
Isolator Plug kit	PS2819P	1

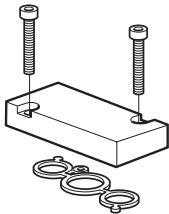


Manifold Blanking plate

Each kit contains:

- 1 pcs Cover Plate
 - 2 pcs Mounting Screws
 - 1 pcs Gasket
- Used to blank off unused stations.

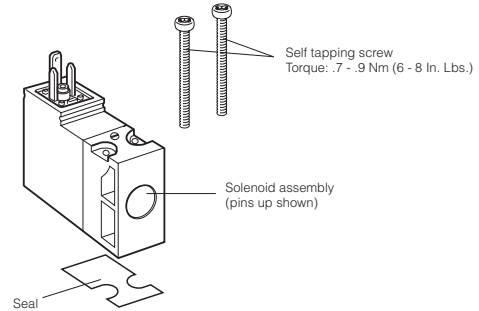
	Order code	Qty
Manifold Blanking plate	PS2869P	1



B Series high performance industrial valves

15mm Solenoid Operators for B3 and B4 Valves

Electrical connection EN 175302-803 C/ISO15217 (Ex DIN 43650C)



Solenoids 15mm NC, standard

(Note! Mounting screws included with basic valve)

	Voltage	Weight Kg	Order code Without manual override	Weight Kg	Order code Override, blue, non locking flush	Weight Kg	Order code Override, yellow, locking flush
	12 VDC	0,038	P2E-KV32B0	0,038	P2E-KV32B1	0,038	P2E-KV32B2
	24 VDC	0,038	P2E-KV32C0	0,038	P2E-KV32C1	0,038	P2E-KV32C2
	48 VDC	0,038	P2E-KV32D0	0,038	P2E-KV32D1	0,038	P2E-KV32D2
	24 VAC 50Hz	0,038	P2E-KV31C0	0,038	P2E-KV31C1	0,038	P2E-KV31C2
	48 VAC 50/60Hz	0,038	P2E-KV34D0	0,038	P2E-KV34D1	0,038	P2E-KV34D2
	115 VAC 50Hz	0,038	P2E-KV31F0	0,038	P2E-KV31F1	0,038	P2E-KV31F2
	120 VAC 60Hz						
	230 VAC 50Hz	0,038	P2E-KV31J0	0,038	P2E-KV31J1	0,038	P2E-KV31J2
	240 VAC 60Hz						

Solenoid coils for B5 valves

Solenoid coils to suit 'N' enclosure type 22mm 3-Pin EN 175301-803 Industrial Form B

Coil Voltage	Order code	Weight (kg)
24 VAC	PS2828B42P	0.093
12 VDC	PS2828B45P	0.093
24 VDC	PS2828B49P	0.093
110 VAC	PS2828B53P	0.093
230 VAC	PS2828B57P	0.093

Solenoid Operator Kit

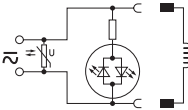
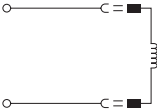
Each kit contains:
1 large 'O' ring for operator base
1 small 'O' ring for operator base
2 mounting screws
1 solenoid/stem nut

	Order code	Qty
Non locking m/o	PS2844BP	1
Locking m/o	PS2844CP	1

B Series high performance industrial valves

Solenoid Connectors / Cable Plugs EN175301-803

	Description	Order code 15mm Form C/ISO15217 Suitable for B3 & B4 valves	Order code 22mm Industrial Form B Suitable for B5 valves
With large headed screw suitable for mounting in inaccessible or recess position 	Standard IP65	P8C-C	
	24V DC LED and protection IP65	P8C-C26C	
	110V AC LED and protection IP65	P8C-C21E	
With standard screw 	Standard IP65 without flying lead	P8C-D	3EV10V10
	With LED and protection 24V AC/DC	P8C-D26C	3EV10V20-24
	With LED and protection 110V AC	P8C-D21E	3EV10V20-110
	With LED and protection 230V AC		3EV10V20-230
With cable 	Standard with 2m cable IP65	P8L-C2	
	Standard with 5m cable IP65	P8L-C5	
	24V AC/DC, 2m cable LED and protection IP65	P8L-C226C	
	24V AC/DC, 5m cable LED and protection IP65	P8L-C526C	3EV10V20-24L5
	24V AC/DC, 10m cable LED and protection IP65	P8L-CA26C	
	110V AC/DC, 2m cable LED and protection IP65	P8L-C221E	
	110V AC/DC, 5m cable LED and protection IP65	P8L-C521E	3EV10V20-110L5
	230V AC, 5m cable LED and protection IP65		3EV10V20-230L5



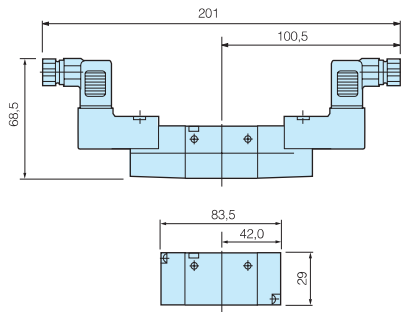
P8C-C
P8C-D
P8L-C2
P8L-C5
3EV10V10

P8C-D26C	P8L-C226C
P8C-D21E	P8L-C526C
P8C-C26C	P8L-CA26C
P8C-C21E	P8L-C221E
	P8L-C521E
3EV10V20-24	3EV10V20-24L5
3EV10V20-110	3EV10V20-110L5
3EV10V20-230	3EV10V20-230L5

B Series high performance industrial valves

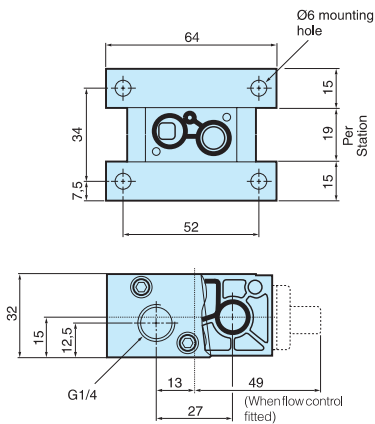
Dimensions, B3 Valve Series

5/3 Body ported

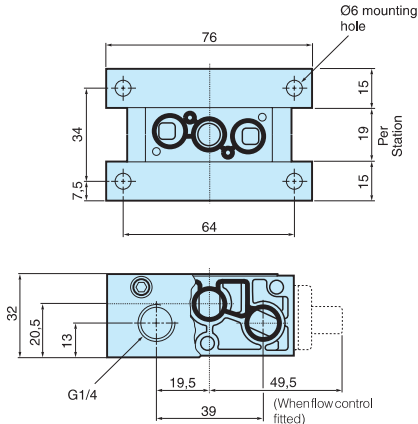


Manifolds - IEM Inlet Exhaust Manifold System

3/2 Inlet Exhaust Manifold For B3 Body Ported Valves



5/2 Inlet Exhaust Manifold For B3 Body Ported Valves



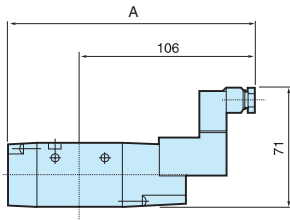
All dimensions in mm unless otherwise stated

B Series high performance industrial valves

Dimensions, B4 Valve Series

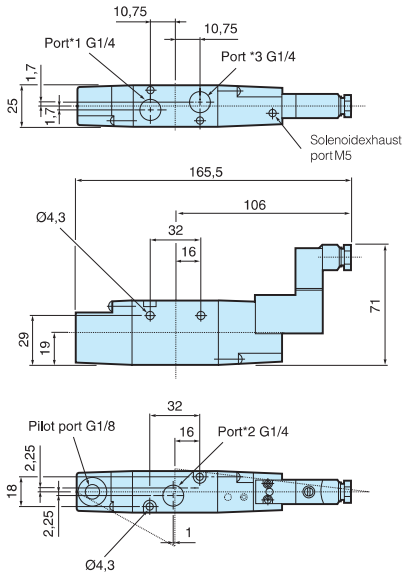
3/2 Body ported

Single solenoid operated air spring return / spring return

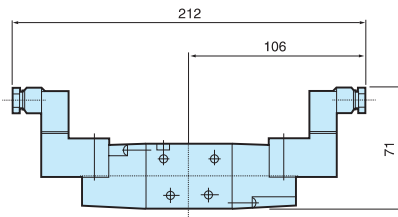


	Air differential return	Spring return
A	154,0	156,0

Single solenoid operated air pilot return

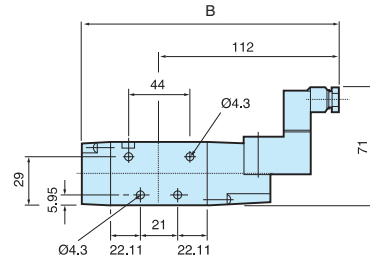


Double solenoid operated



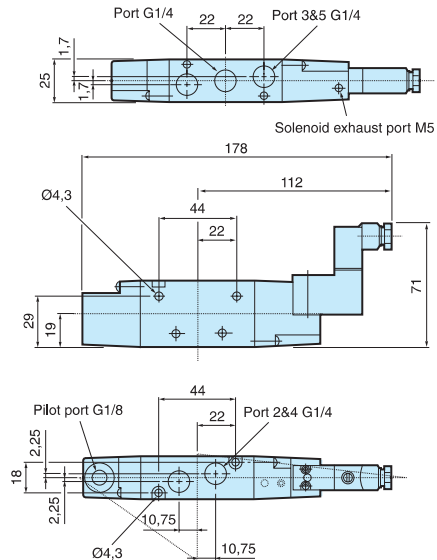
5/2 Body ported

Single solenoid operated air spring return / spring return

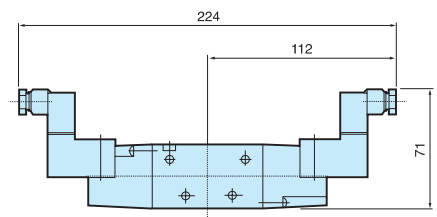


	Air differential return	Spring return
B	166,0	168,0

Single solenoid operated air pilot return



Double solenoid operated

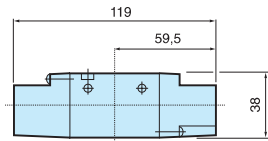


All dimensions in mm unless otherwise stated

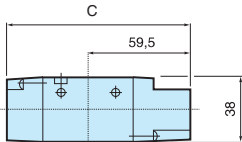
B Series high performance industrial valves

Dimensions, B4 Valve Series

3/2 Body ported
Double air pilot operated

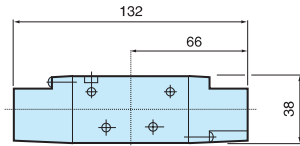


Air pilot operated air spring return / spring return

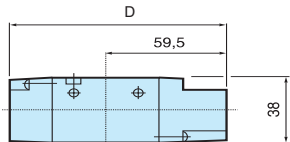


	Air differential return	Spring return
C	107,5	109,5

5/2 Body ported
Double air pilot operated

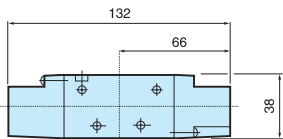


Air pilot operated air spring return / spring return

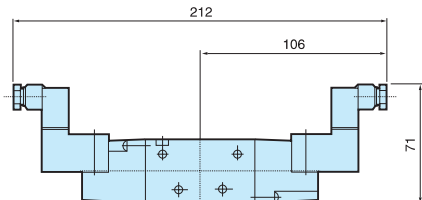


	Air differential return	Spring return
D	120,0	122,0

5/3 Body ported
Double air pilot return

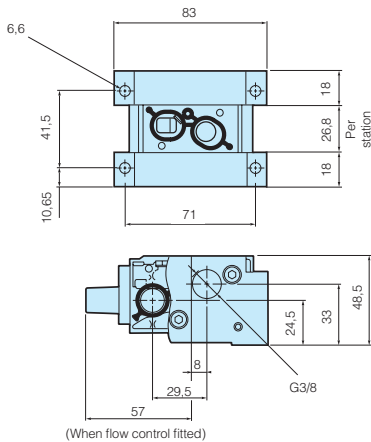


5/3 Body ported
Double solenoid operated

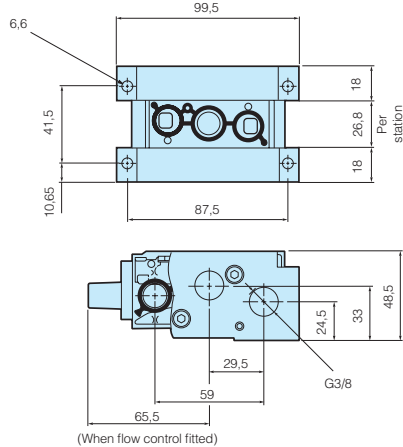


Manifolds - IEM Inlet Exhaust Manifold System

3/2 Inlet Exhaust Manifold
For B4 Body Ported Valves



5/2 Inlet Exhaust Manifold
For B4 Body Ported Valves



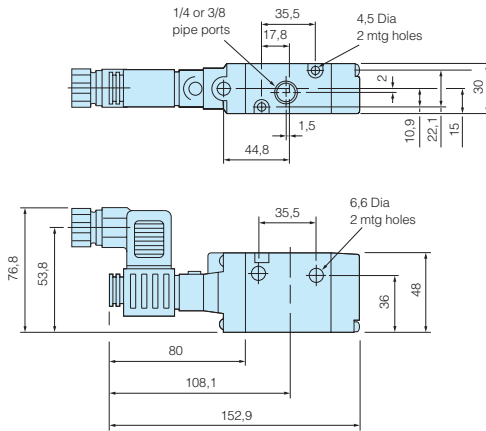
All dimensions in mm unless otherwise stated

B Series high performance industrial valves

Dimensions, B5 Valve Series

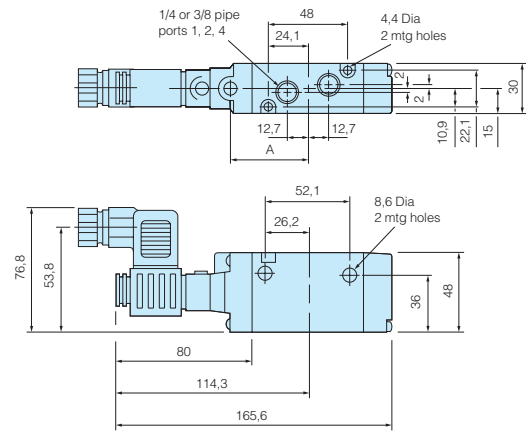
3/2 Body ported

Single solenoid operated air spring return / spring return



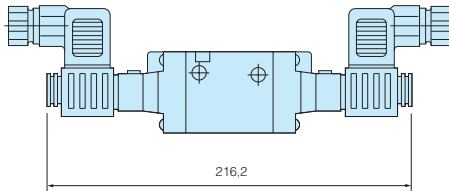
5/2 and 5/3 Body ported

Single solenoid operated air spring return / spring return

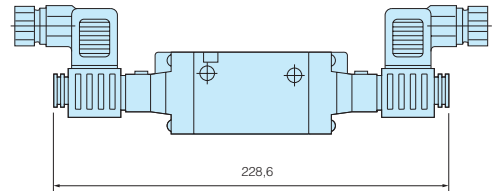


	2 Position	3 Position
A	51,1	62,7

Double solenoid operated



Double solenoid operated

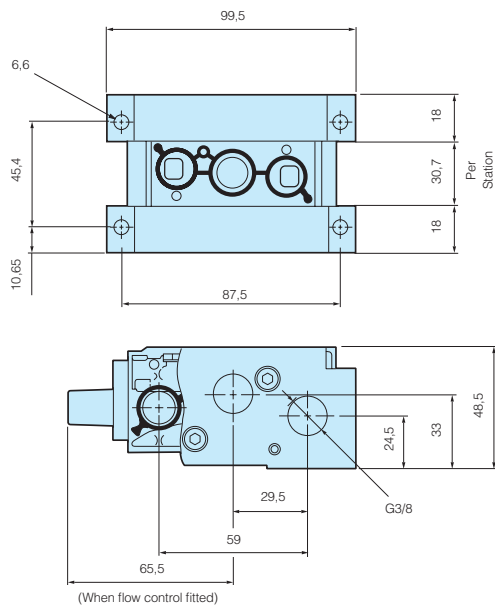


All dimensions in mm unless otherwise stated

B Series high performance industrial valves

Manifolds - IEM Inlet Exhaust Manifold System

5/2 Inlet Exhaust Manifold For B5 Body Ported Valves



Miniature low voltage solenoid valves, ideal for powering small cylinders in the packaging and process industries. Metal bodies with stand alone or manifold mounted versions.

- 2 sizes: M5 and 1/8"
- Compact body with large flow
- Quick response time, faster than 10ms
- Expected life time more than 50,000,000 cycles
- Low power consumption only 0.6W
- Optional multipin connector manifold
- Manual override



Operating information

Working pressure : 1.5 to 7 bar
 Working temperature : -5°C to +50°C
 Flow (Qmax) A05 : 260 l/min
 A12 : 850 l/min
 Flow Qn A05 : 160 l/min
 A12 : 510 l/min

For technical information see CD

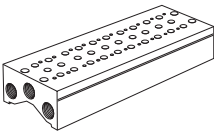
Directional control valves A05R and A12R series, inline / IEM manifold

Symbol	Description (Electrically Actuated)	Voltage	Order code A05R - M5 ports	Order code A12R - G1/8 ports
	5/2 single solenoid	24V DC	A05RS251PM5MF	A12RS251PG1MF
	5/2 double solenoid	24V DC	A05RD251PM5MF	A12RD251PG1MF
	5/3 closed centre	24V DC	A05RD351PM5MF	A12RD351PG1MF

A05R/A12R Series Manifolds

Manifold for individual wiring threaded type

No. of stations	Port size	Size	Order Code Manifold
4	M5	A05	MMFU4A05G
	G1/8	A12	MMFU4A12G
6	M5	A05	MMFU6A05G
	G1/8	A12	MMFU6A12G
8	M5	A05	MMFU8A05G
	G1/8	A12	MMFU8A12G



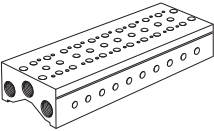
 Indicates stocked product.

Directional control valves A05P/A12P series, sub-base version

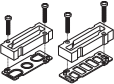
Symbol	Description	Voltage	Order code A05P	Order code A12P
	Electrically actuated 5/2 single solenoid	24V DC	A05PS251P	A12PS251P
	Electrically actuated 5/2 double solenoid	24V DC	A05PD251P	A12PD251P
	Electrically actuated 5/3 closed centre	24V DC	A05PD351P	A12PD351P

A05P/A12P Series manifold sub-bases

Manifolds individual wiring threaded type

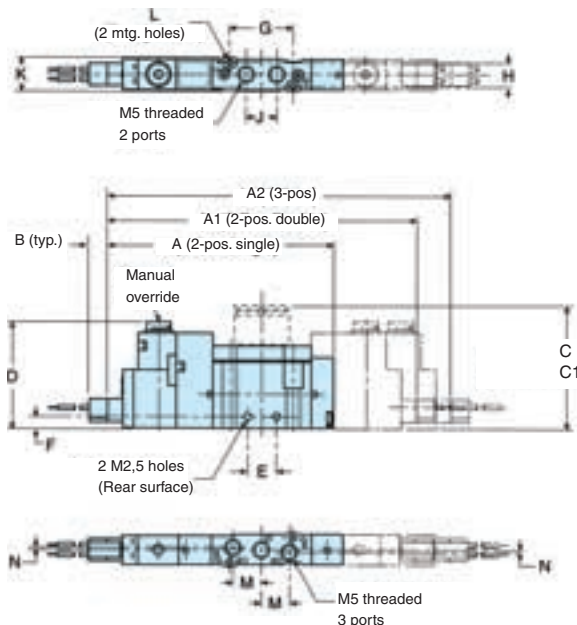
	No. of stations	Port size	Size	Order Code Manifold
	4	M5	A05	MMFS4A05GM5
		G1/8	A12	MMFS4A12GG1
	6	M5	A05	MMFS6A05GM5
		G1/8	A12	MMFS6A12GG1
	8	M5	A05	MMFS8A05GM5
		G1/8	A12	MMFS8A12GG1

Mounting and Wiring Accessories

Description	Order code
 Connector with lead wire black (-) red (+) 500mm	A05PDCCL5
 IEM blank plate kit (pack of 5)	A05RGBP A12RGBP
 Subbase blank plate kit (pack of 5)	A05PGBP A12PGBP

 Indicates stocked product.

A05R - Single and double operators - Body ported

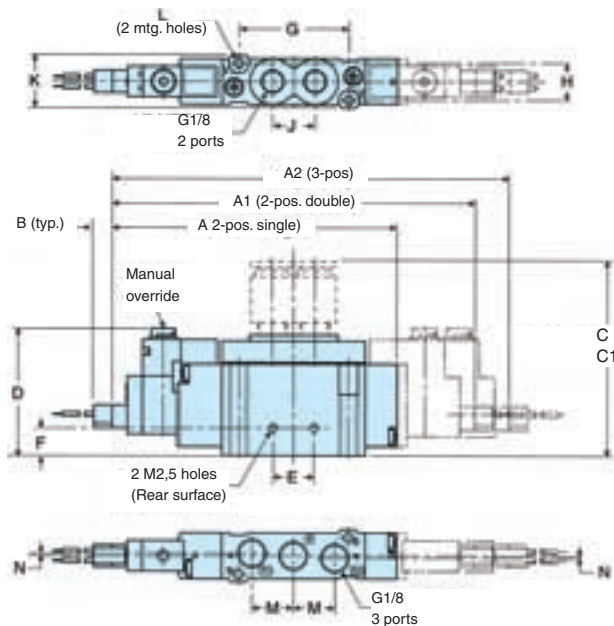


A05R - Body ported

A 74	A1 100	A2 108	B 6	C -
C1 -	D 34,6	E 9,6	F 4	G 21
H 8,5	J 10,2	K 11,4	L Ø2,1	M 9,5
N 1				

Dimensions in mm

A12R - Single and double operators - Body ported

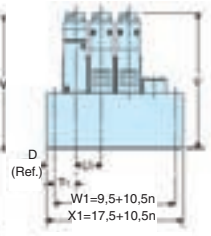
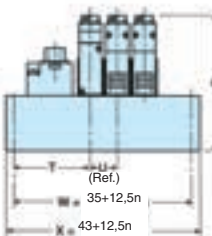
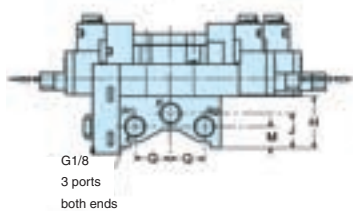
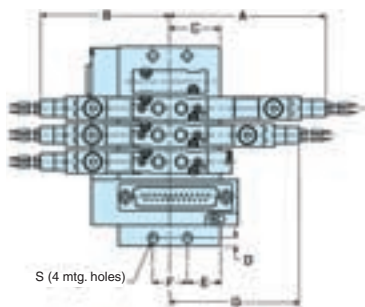


A12R - Body ported

A 93,5	A1 119	A2 130	B 6	C -
C1 -	D 41,6	E 13,4	F 9	G 36
H 12	J 14	K 17,2	L Ø3,1	M 13,6
N 0,8				

Dimensions in mm

A05R - Manifold - Valve body ports



MMCU...

MMFU...

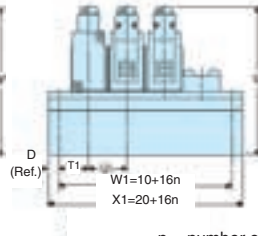
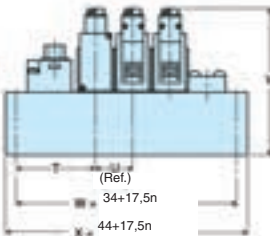
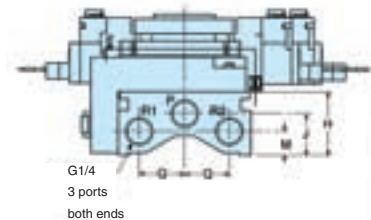
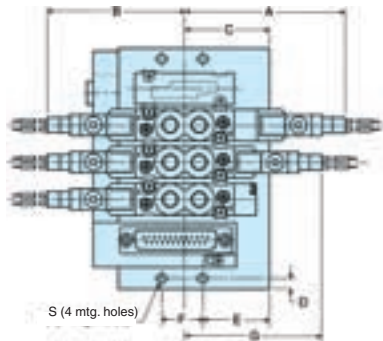
A05R - Manifold - valve body port

A	B	C	D	E
64	56	23,5	4	15,5
F	G	H	J	M
16	56	24	15,5	9,5
Q	S	T	T1	U
16	Ø4,5	34	10	12,5
U1	V			
10,5	63			

Dimensions in mm

n = number of stations

A12R - Manifold - Valve body ports



MMCU...

MMFU...

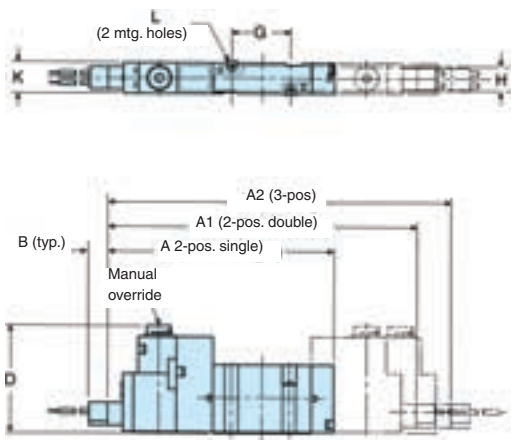
A12R - Manifold - Valve body port

A	B	C	D	E
77	66	29	5	19,2
F	G	H	J	M
19,6	66	27,5	18	10,5
Q	S	T	T1	U
19,5	Ø4,5	37,5	12,2	17,5
U1	V			
16	70			

Dimensions in mm

n = number of stations

A05P - Single and double operators - Subbase

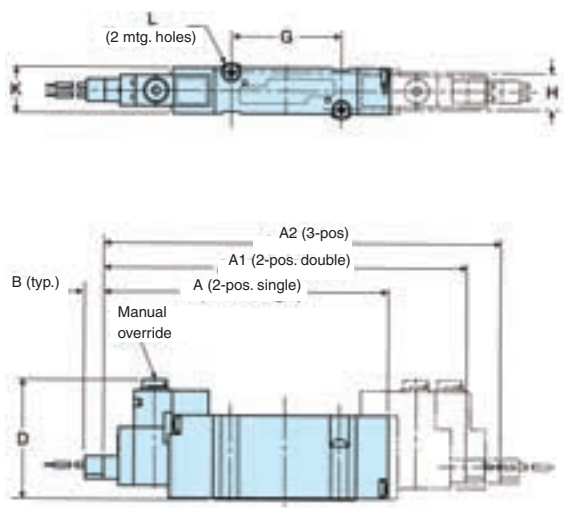


A05P - Subbase

A	A1	A2	B	D
74	100	108	6	35,1
G	H	K	L	
19	8,5	10	Ø2,1	

Dimensions in mm

A12P - Single and double operators - Subbase

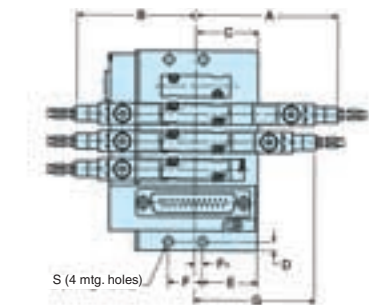


A12P - Subbase

A	A1	A2	B	D
93,5	119	130	6	39,1
G	H	K	L	
34	12	15	Ø3,1	

Dimensions in mm

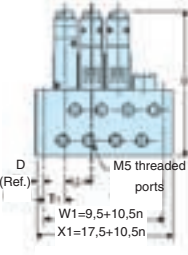
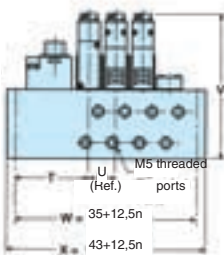
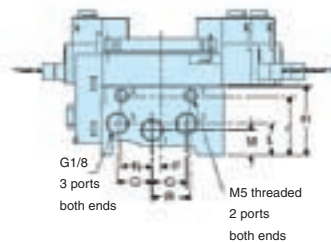
A05P - Manifold - Side ports



A05P - Manifold - Side ports

A	B	C	D	E
64	56	30,2	4	25,5
F	F1	G	H	J
16	4,7	56	32	28
L	M	N	P	Q
14,5	11,5	14	3	16
R	S	T	T1	U
18	Ø4,5	33,8	10	12,5
	U1	V		
	10,5	67		

Dimensions in mm

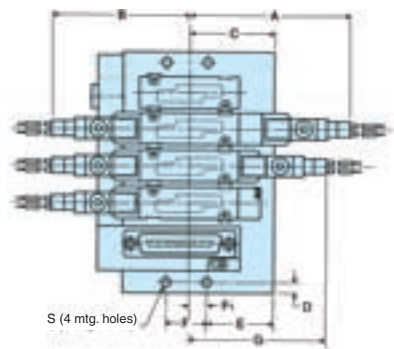


n = number of stations

MMCS...

MMFS...

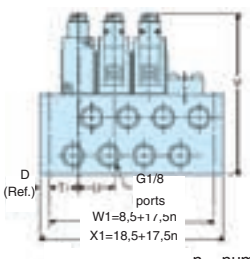
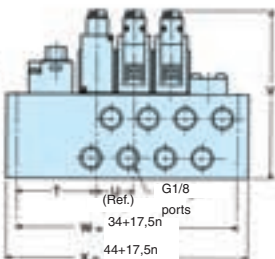
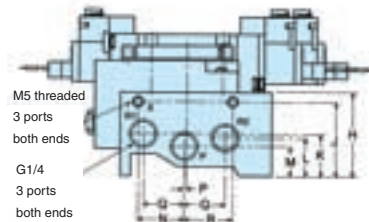
A12P - Manifolds - Side ports



A12P - Manifold - Side ports

A	B	C	D	E
77	66	40,4	5	31,7
F	F1	G	H	J
19,6	11	66	39,5	35
K	L	M	N	P
20,5	18	14	22	1
Q	R	S	T	T1
19,5	23	Ø4,5	37,2	12,7
U	V			
17,5	79			

Dimensions in mm



n = number of stations

MMCS...

MMFS...

G1/8 and G1/4 Body ported spool valves with excellent reliability. Viton seals as standard provide long service life even in arduous conditions.

- 43 series G1/8 body ported
- 53 series G1/4 body ported
- Stainless steel spool
- 3/2, 5/2 and 5/3 versions
- Viton body seals as standard
- Integral mounting holes

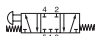


Operating information

Working pressure	Vacuum-10 bar	
Working temperature	-10 °C to +80 °C	
Port size	G1/8	43 series
	G1/4	53 series
Flow (Qmax);	43 series	510 l/min
	53 series	1740 l/min

For technical information see CD

Push button operated valves, B43 / B53 Series

	Symbol	Type	Actuator	Return	Size	Order code
		3/2	Button, black	Spring	G1/8 G1/4	B43003BXS B53003HXS
		3/2	Button black	Air Pilot	G1/4	B53003HXP
		3/2	Button black	Spring	G1/8	B43603BX
		3/2	Button red	Spring	G1/4	B53003HY
		3/2	Button, black	Button	G1/8 G1/4	B43003HXS B53003HX
		5/2	Button, black	Spring	G1/8 G1/4	B43004BXS B53004HXS
		5/2	Button, black	Button	G1/8 G1/4	B43004HXS B53004HX
		5/2	Button black	Air Pilot	G1/8 G1/4	B43004HXP B53004HXP
		5/3	Button closed centre	Button self centring	G1/4	B53004HXX

 Indicates stocked product.

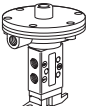
Mechanically operated valves, B43 / B53 Series

	Symbol	Type	Actuator	Return	Size	Order code
		3/2	Plunger	Spring	G1/8	B43003CS
			Plunger	Spring	G1/8	B43603C
			Plunger	Spring	G1/4	B53003CS
		5/2	Plunger	Spring	G1/8	B43004CS
			Plunger	Spring	G1/4	B53004CS
		3/2	Roller lever	Spring	G1/8	B43003RS
			Roller lever	Spring	G1/8	B43603R
			Roller	Spring	G1/4	B53003RS
		3/2	One way roller trip	Spring	G1/8	B43003RTS
		5/2	Roller lever	Spring	G1/8	B43004RS
			Roller	Spring	G1/4	B53004RS
		5/2	Roller	Air Pilot	G1/8	B43004RP

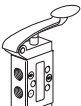
Manually operated valves, B43/53 series

	Symbol	Type	Actuator	Return	Size	Mid-position	Order code
		3/2	Foot pedal	Spring	G1/8		B43003FS
					G1/4		B53003FS
			Foot pedal	Foot Pedal	G1/4		B53003G
		5/2	Foot pedal	Spring	G1/8		B43004FS
					G1/4		B53004FS
			Foot pedal	Foot Pedal	G1/4		B53004G
		5/3	Foot pedal	Foot Pedal	G1/4	Closed centre	B53004GX
			Foot pedal	Foot Pedal	G1/4	Vented centre	B53004GY

Diaphragm operated valves

	Symbol	Type	Actuator	Return	Size	Mid-position	Order code
		3/2	Diaphragm	Spring	G1/8		B43003DF
			Diaphragm	Spring	G1/8		B43004DF

Palm lever operated valves

	Symbol	Type	Actuator	Return	Size	Mid-position	Order code
		3/2	Palm lever	Spring	G1/8		B43003ES

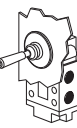
 Indicates stocked product.

Manually operated valves, B43/53 series

Lever operated

		3/2	Lock down lever	Spring	G1/8	B43003LS
		3/2	Lock down lever	Spring	G1/8	B43603L
		5/2	Lock down lever	Spring	G1/8	B43004LS
		3/2	Lever	Spring	G1/4	B53003LS
		3/2	Lever	Air Pilot	G1/4	B53003LP
		3/2	Lever	Lever	G1/4	B53003LT
		5/2	Lever	Spring	G1/4	B53004LS
		5/2	Lever	Air Pilot	G1/4	B53004LP
		5/2	Lever	Lever	G1/4	B53004LT
		5/3	Lever Closed centre	Lever Held in three positions	G1/4	B53004L
		5/3	Lever Vented centre	Lever Held in three positions	G1/4	B53004LW
		3/3	Lever	Spring	G1/4	B53003LX
		5/3	Lever Closed centre	Lever Self centring	G1/4	B53004LX
		5/3	Lever Vented centre	Lever Self centring	G1/4	B53004LY

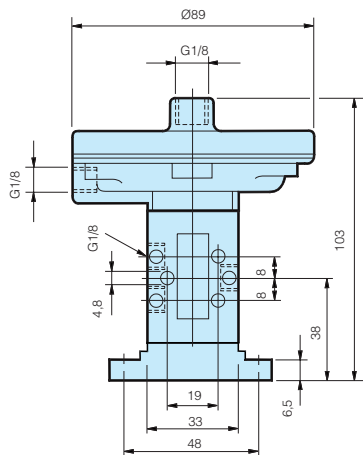
Panel mounting kit - B53 series

	M53004L-10A

 Indicates stocked product.

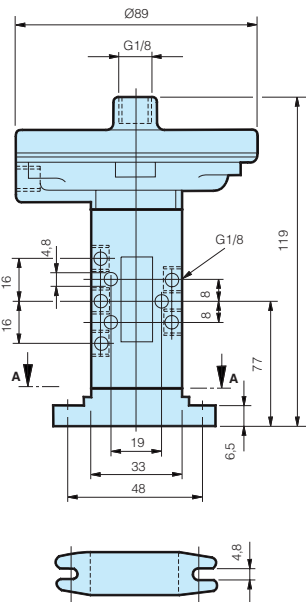
3/2 valve dimensions (mm)

Diaphragm operated
spring return

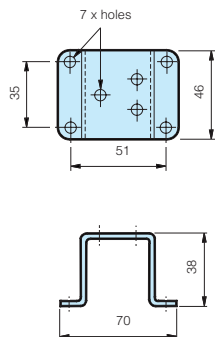


5/2 valve dimensions (mm)

Diaphragm operated
spring return

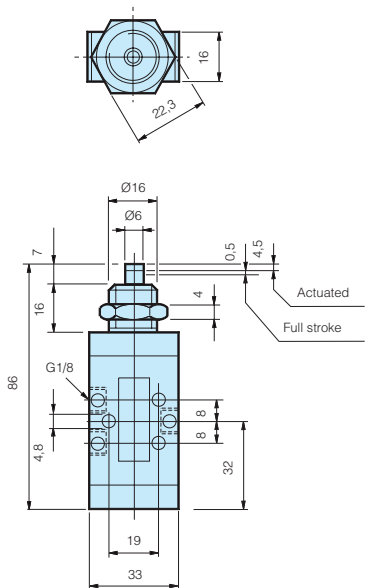


Mounting brackets



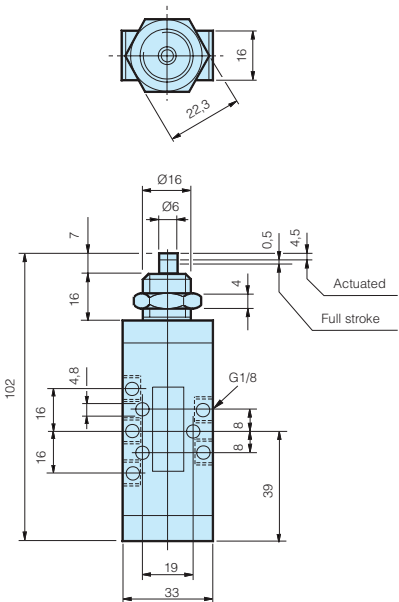
3/2 valve dimensions (mm)

Plunger operated
spring return

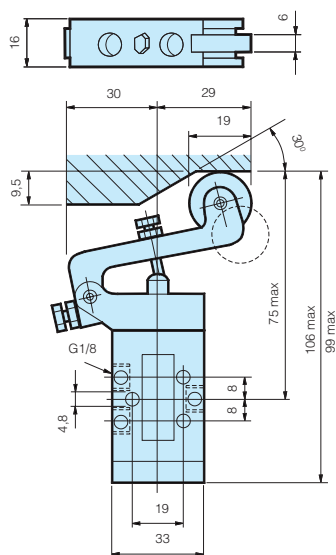


5/2 valve dimensions (mm)

Plunger operated
spring return



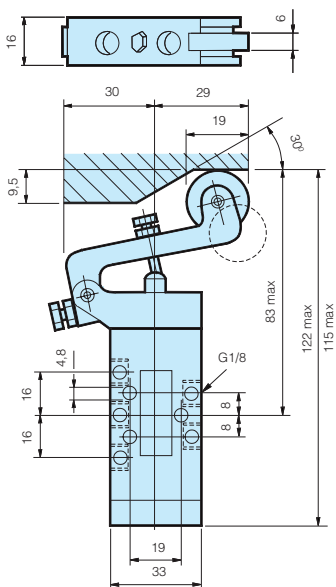
Roller operated spring return



The technical drawing illustrates the M8000-10000 series motor assembly in two views:

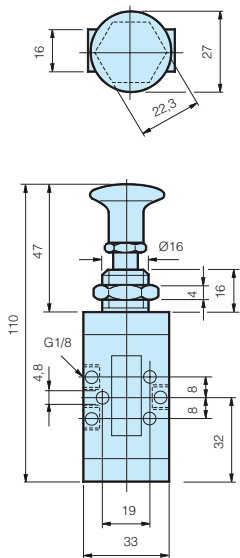
- Top View (Front View):** Shows a rectangular base with a width of 33 mm and a height of 7.5 mm. The base features four mounting holes with diameters of $\varnothing 6$, $\varnothing 8$, $\varnothing 10$, and $\varnothing 12$. A central shaft hole has a diameter of $\varnothing 16$. The total length of the base is 110 mm.
- Side View:** Shows the profile of the motor assembly. The total height from the base to the top of the motor housing is 117 mm max. The distance from the base to the center of the motor shaft is 86 mm max. The motor housing has a width of 30 mm at its base and tapers to 27 mm at the top. The distance between the center of the motor shaft and the center of the base mounting holes is 24 mm. The motor shaft has a diameter of $\varnothing 6$.

Roller operated spring return

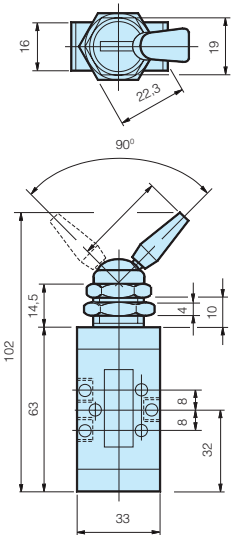


3/2 valve dimensions (mm)

Button operated
spring or button return

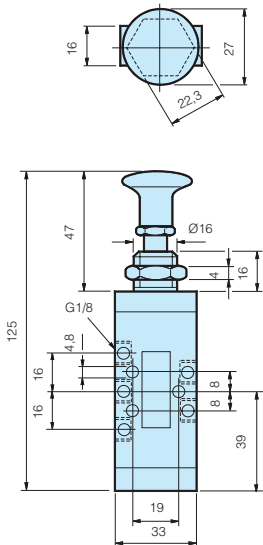


Lock down lever operated
spring return

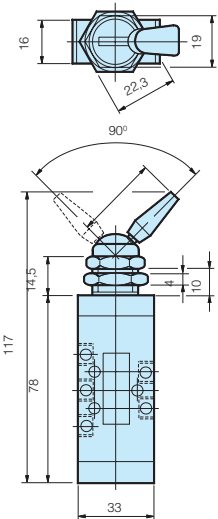


5/2 valve dimensions (mm)

Button operated
spring or button return

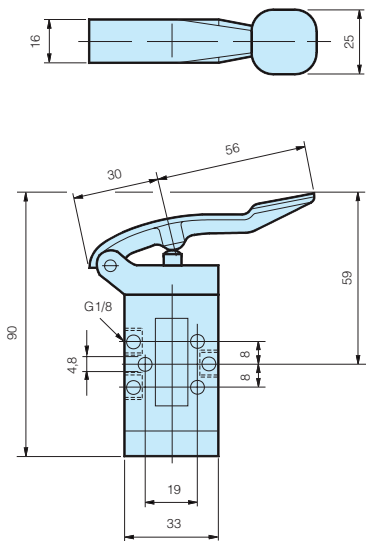


Lock down lever operated
spring return

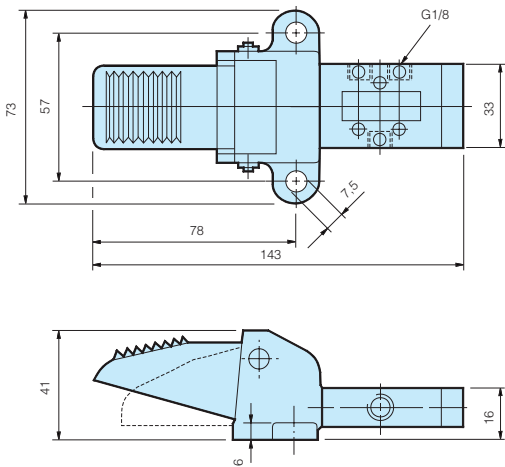


3/2 valve dimensions (mm)

Palm lever operated
spring return

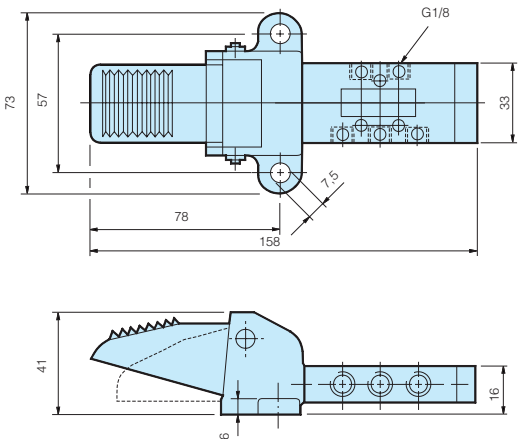


Foot pedal operated
spring return



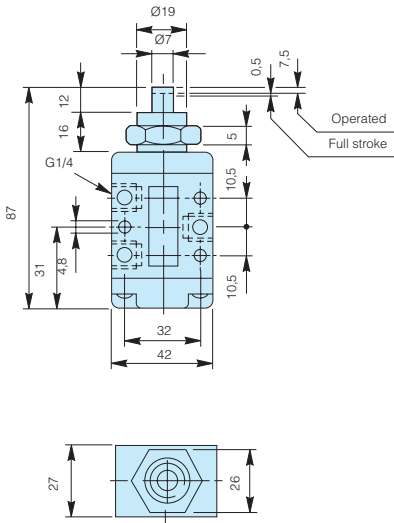
5/2 valve dimensions (mm)

Foot pedal operated
spring return

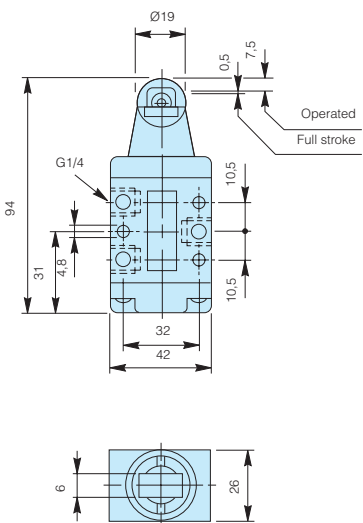


3/2 valve dimensions (mm)

Plunger operated spring return

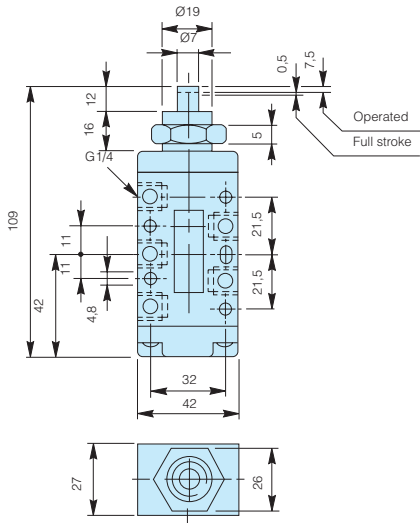


Roller operated

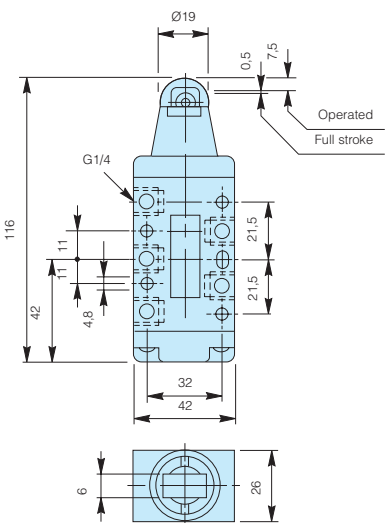


5/2 valve dimensions (mm)

Plunger operated spring return

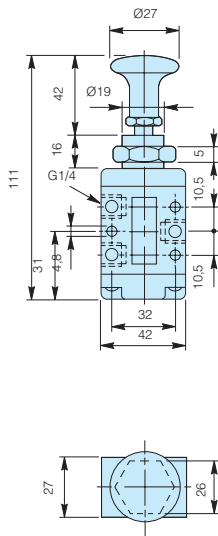


Roller operated

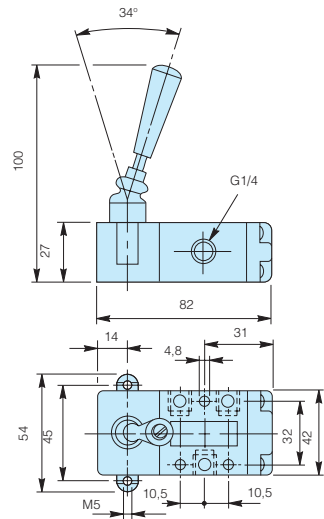


3/2 valve dimensions (mm)

Button operated
spring return

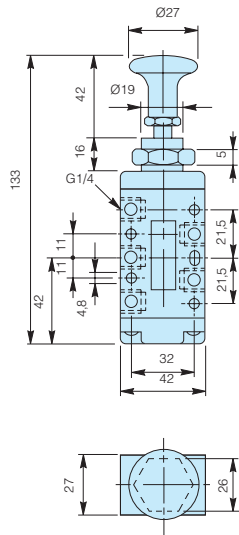


Lever operated
spring return

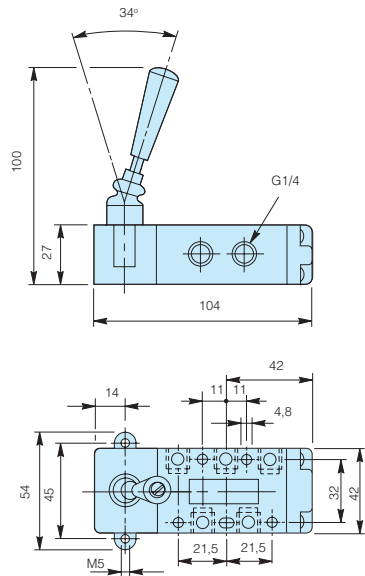


5/2 valve dimensions (mm)

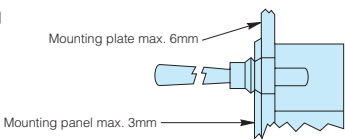
Button operated
spring return



Lever operated
spring return

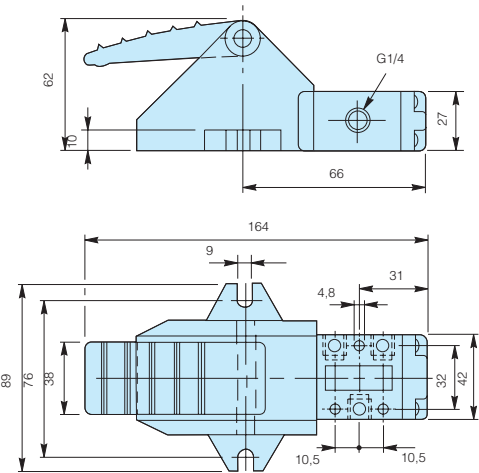


Panel mounting

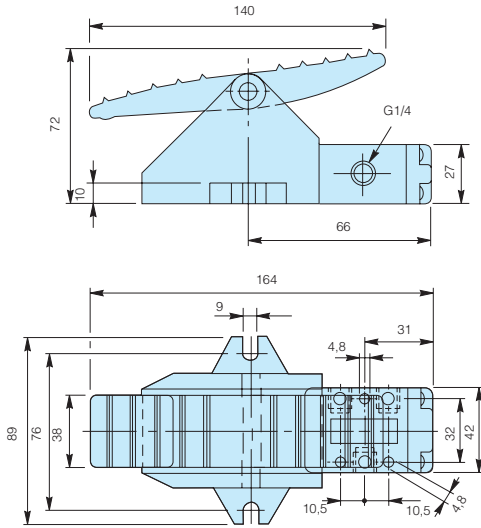


3/2 valve dimensions (mm)

Foot pedal operated
spring return

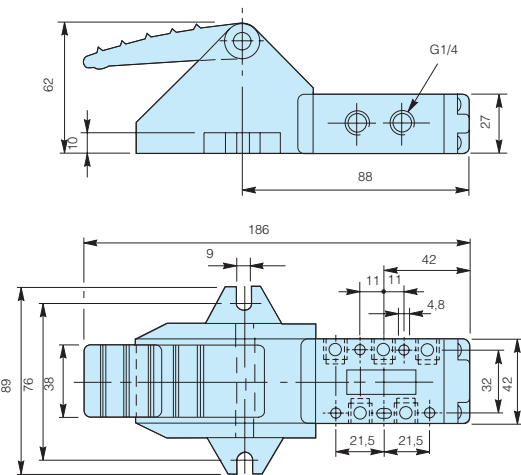


Foot pedal operated

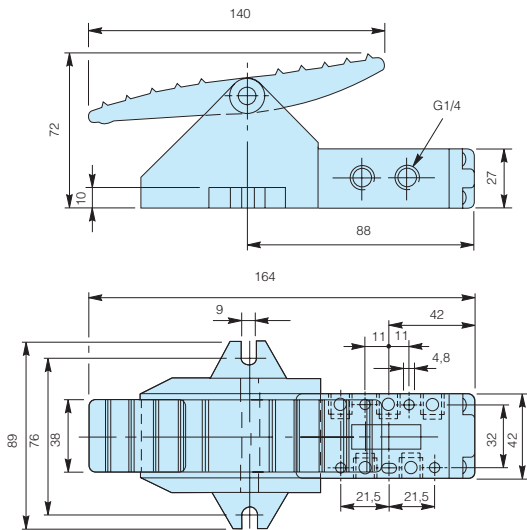


5/2 valve dimensions (mm)

Foot pedal operated
spring return

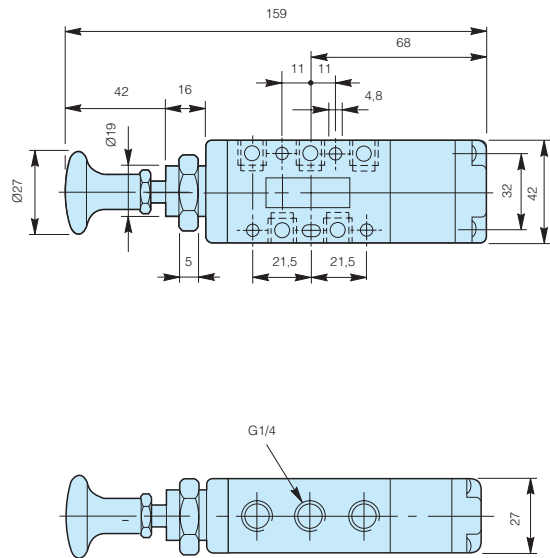


Foot pedal operated



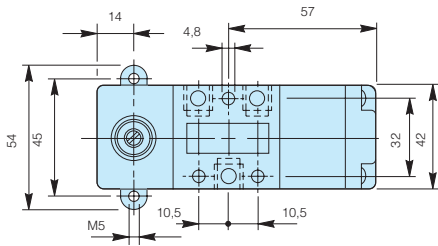
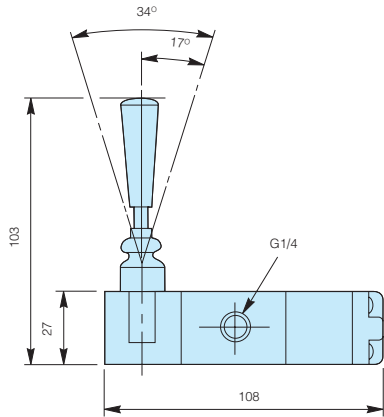
5/3 valve dimensions (mm)

Button operated



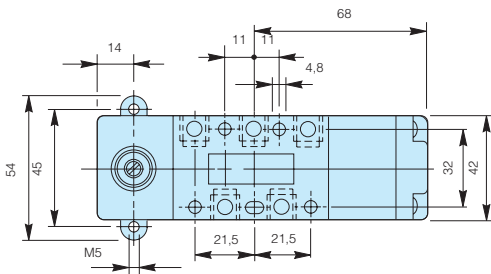
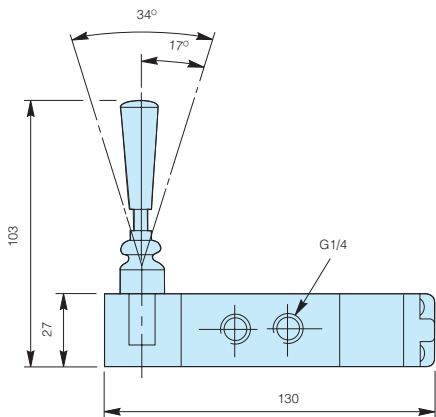
3/3 valve dimensions (mm)

Lever operated

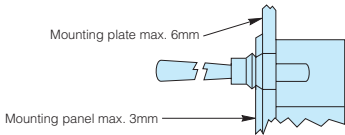


5/3 valve dimensions (mm)

Lever operated

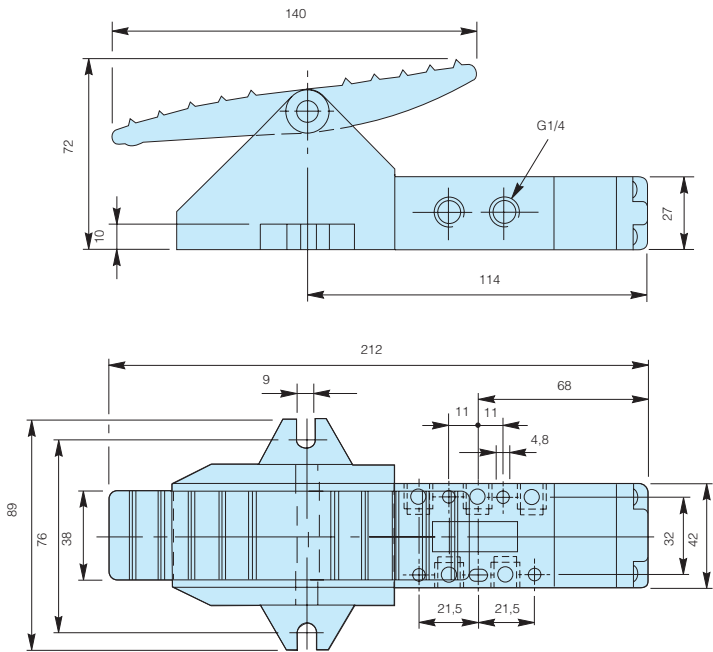


Panel mounting



5/3 valve dimensions (mm)

Foot pedal operated
spring return



Designed to fit the standard electrical Ø22mm knock out, they can provide dual pneumatic and electrical output signals. A variety of button and switch actuators are available.

- Facia mounted operation
- 3/2 NO or NC
- Modular construction
- Wide range of actuators
- Dual pneumatic and electrical output signal



Flow characteristics

PXB-B3••	Q _{max} = 60 l/min Q _n = 30 l/min
PXB-B4••	Q _{max} = 240 l/min Q _n = 120 l/min
Connections	Ø 4 mm push-in

Operating information

Push button valves - Visual indicators

Working pressure	
PXB-B3••	1 to 9 bar
PXB-B4••	1 to 10 bar
PXV-••	1 to 8 bar
Working temperature	-15°C to +60°C
ATEX approval:	CE Ex II 3 GD
For ATEX specific products contact Sales Office	

Spring return push buttons

Symbol	Flow	Order code
	60 l/min	PXB-B3111BA2
	240 l/min	PXB-B4131BA2
Black - With 1 NC valve		

Symbol	Flow	Order code
	60 l/min	PXB-B3111BA4
	240 l/min	PXB-B4131BA4
Red - With 1 NC valve		

Symbol	Flow	Order code
	60 l/min	PXB-B3111BA3
	240 l/min	PXB-B4131BA3
Green - With 1 NC valve		

Mushroom head push buttons

Symbol	Flow	Order code
	60 l/min	PXB-B3111BC2
	240 l/min	PXB-B4131BC2
Black - Spring return - With 1 NC valve		

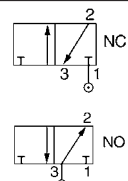
Symbol	Flow	Order code
	60 l/min	PXB-B3111BT4
	240 l/min	PXB-B4131BT4
Red - Latching - With 1 NC valve		

Selector switches

Symbol	Flow	Order code
	60 l/min	PXB-B3111BD2
	240 l/min	PXB-B4131BD2
Black - 2 positions - With 1 NC valve		

Indicates stocked product.

Additional switch valves, electrical contact block and mounting brackets

Symbol	Flow	Order code	Contact	Order code
	60 l/min NC	PXB-B3911	Normally open NO 	ZBE-101
	240 l/min NC	PXB-B4931	Normally closed NC 	ZBE-102
	60 l/min NO	PXB-B3921	 All PXB-B4 valves can be connected either as normally closed 3/2 valve (NC) or normally open 3/2 valve (NO) as required, by connecting the primary air supply to port 1 or port 3.	
	240 l/min NO	PXB-B4931		
	60 l/min NC	PXB-B3912		
	60 l/min NO	PXB-B3922		
Symbol	Flow	Order code	Description	Order code
	60 l/min NC	PXB-B3111B	Mounting 	ZB4-BZ009 block
	60 l/min NO	PXB-B3121B		

Spring return push buttons

Spring return

	Colour	Order code
 Flush	Black	ZB4-BA2
	Green	ZB4-BA3
	Red	ZB4-BA4

Mushroom head

	Colour	Order code
 Ø40 mm spring return	Black	ZB4-BC2
	Green	ZB4-BC3
	Red	ZB4-BC4

Selector switches

Black handle

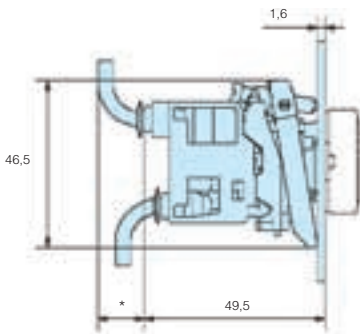
	Function	Order code
 Standard	2 positions fixed	ZB4-BD2
	3 positions fixed	ZB4-BD3

Visual indicators

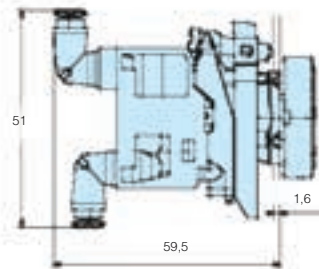
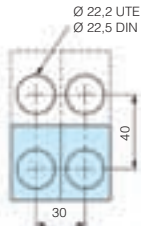
	Colour actuated	Colour unactuated	Order code
	Green	Black	PXV-F131
	Red	Black	PXV-F141
	Yellow	Black	PXV-F151
	Blue	Black	PXV-F161
	White	Black	PXV-F111
	Green	Red	PXV-F1314

 Indicates stocked product.

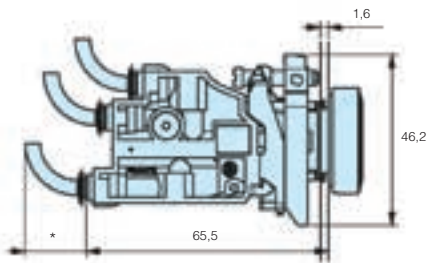
PXB-B3



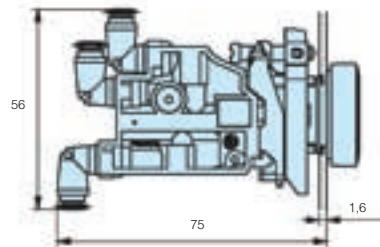
Body width 30mm
* With 2 x 4mm tube = 10
With 2,7 x 4mm tube = 15



PXB-B4



Body width 30mm
* With 2 x 4mm tube = 10
With 2,7 x 4mm tube = 15



Rugged brass bodies with excellent corrosion resistance make these valves the ideal choice for arduous applications. Large and robust manual actuators are available together with air pilot actuators.

- Rugged valves for heavy duty applications
- Large and robust actuators for easy operation
- Excellent corrosion resistance
- Integral mounting holes
- Panel mounting versions

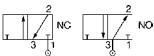


Operating information

Working temperature -20 °C to +70 °C
Working pressure Max 10 bar
Flow (Qmax): 380 l/min
For technical information see CD

Push button valves, VA13 Series - G¹/₈

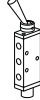
Symbol	Actuator	Return	Operating force at 6 bar, N	Mounting	Order code
Hand actuated					
	 Flush-Push button, red	Spring	32,5	Panel	VA13-HIS4
	 Flush-Push button, black	Spring	32,5	Panel	VA13-HIS4A06
	 Hand lever Held in two positions	Hand lever	8	Panel	VA13-HB24
	 Hand lever Held in two positions	Hand lever	8	Side	VA13-HB2
	 Button, red Two positions	Button	3	Panel	VA13-KL24
	 Button, red	Spring	31,5	Panel	VA13-KS4
	 Button, red Two positions	Button	3	Side	VA13-KL2
	 Button, red	Spring	31,5	Side	VA13-KS
	 Button, red Two positions	Knob/ Air signal	6	Side	VA13-KL2A



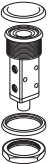
All 3/2 type VA13 valves can be connected either as normally closed 3/2 valve (NC) or normally open 3/2 valve (NO) as required, by connecting the primary air supply to port 1 or port 3

 Indicates stocked product.

Push button valves, VA15 Series - G $\frac{1}{8}$ connection

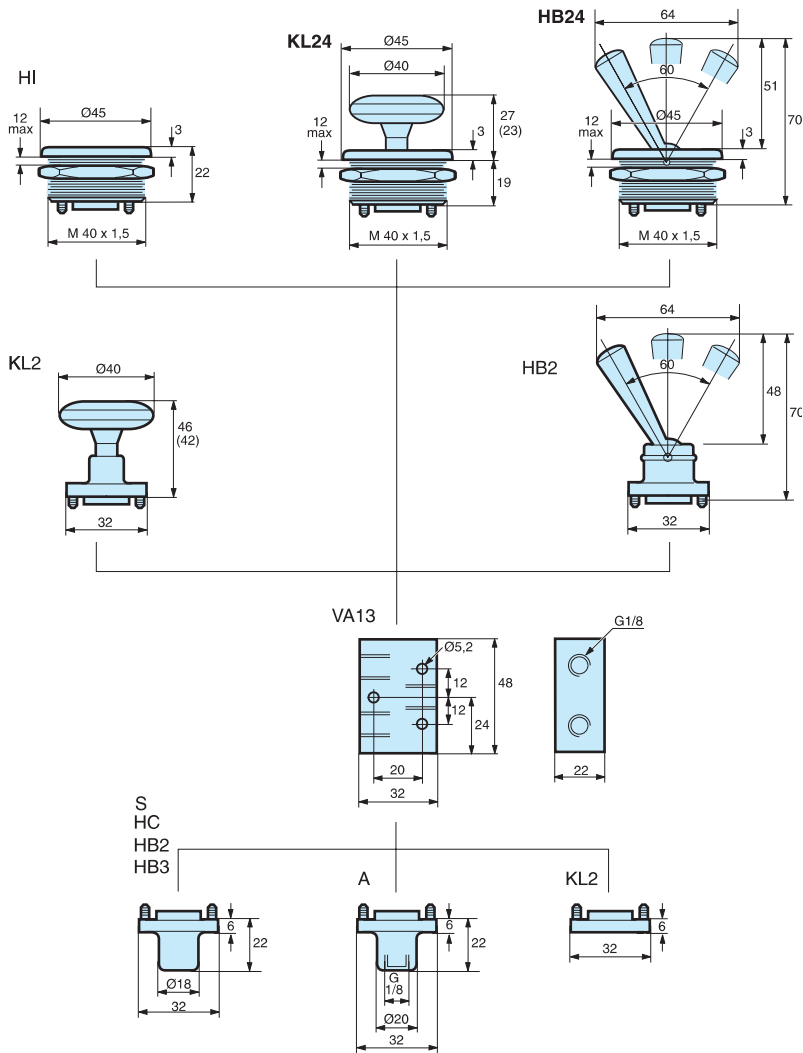
Symbol	Actuator	Return	Operating force at 6 bar, N	Mounting	Order code
Hand actuated					
	Flush-Push button, red	Spring	34,5	Panel	VA15-HIS4
	Hand lever Held in two positions	Hand lever	9	Panel	VA15-HB24
	Hand lever Held in three positions Closed centre position	Hand lever	9	Panel	VA15-HB34
	Hand lever Held in three positions Vented centre position	Hand lever	9	Panel	VA15-XHB34
	Hand lever Three positions Closed centre position	Hand lever	9	Panel	VA15-HC4
	Hand lever Three positions Self centring Vented centre position	Hand lever	9	Panel	VA15-XHC4
	Hand lever Held in two positions	Hand lever	9	Side	VA15-HB2
	Button, red Two positions	Button	5	Panel	VA15-KL24
	Button, red Two positions	Button	5	Side	VA15-KL2
	Air signal	Air signal	3/3	Side	VA15-AA
	Air signal	Spring	4/-	Side	VA15-AS

Accessories for VA13/15HI... Series valves

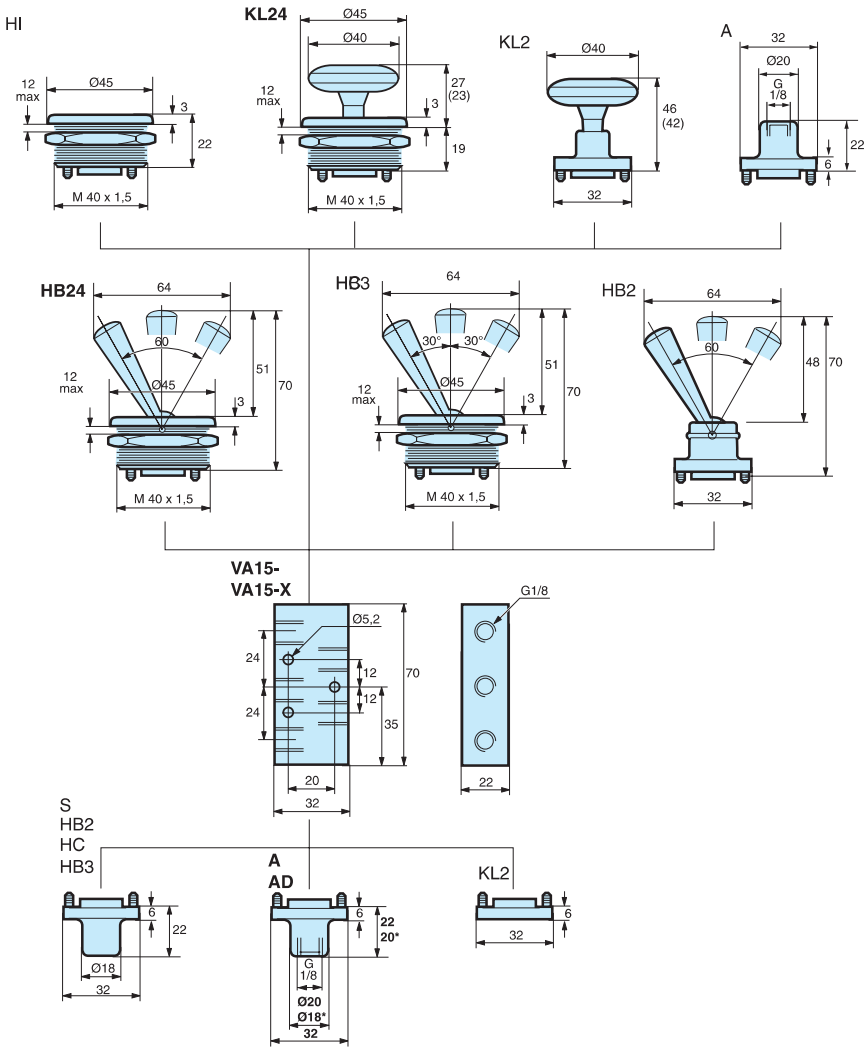
	Description	Order code
 Diaphragm Mounting ring	Diaphragm, black	9127359331
	Diaphragm, yellow	9127359332
	Mounting ring	9127359334

 Indicates stocked product.

Dimensions



Dimensions



Compact 3/2 normally closed metal bodied valves with push-in air connections. Designed for the process duty cycle with high durability. Ideal for the process or packaging industry.

- High durability
- Very good repeat accuracy
- Design for process duty cycle
- Push-in connection
- Versatile and easily maintained
- Miniature size



Operating information

Working pressure; PXC-M	3 to 8 bar			
Working temperature	-15 °C to +60 °C			
	PXC-M111	PXC-M121	PXC-M521	PXC-M601
Flow (Qmax):	60 l/min	85 l/min	250 l/min	250 l/min

Bore Ø1,5 mm, flow 60 NI/min

Symbol	Actuator	Return	Operating forces at 6 bar, N	Order code
	Steel plunger	Spring	11	PXC-M111

Bore Ø1,5 mm, flow 85 NI/min

Symbol	Actuator	Return	Operating forces at 6 bar, N	Order code
	Plastic roller	Spring	4,5	PXC-M121
	Steel roller	Spring	4,5	PXC-M131

Bore Ø2,5 mm, flow 250 NI/min

Symbol	Actuator	Return	Operating forces at 6 bar, N	Order code
	Plastic roller	Spring	7	PXC-M521

3/2 compact limit switches - With Ø4mm Push-in connections with pipeable exhaust port

Bore Ø2,5mm, flow 250 NI/min - With plunger head

Symbol	Actuator	Return	Operating forces at 6 bar, N	Order code
	Steel plunger	Spring	24	PXC-M601A110
	Steel roller plunger	Spring	24	PXC-M601A102
	90° Steel roller plunger	Spring	24	PXC-M601A103

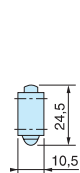
 Indicates stocked product.

Dimensions, Limit switches, Series PXC

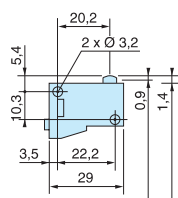
All dimensions in mm unless otherwise stated

3/2 miniature limit switches

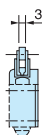
PXC-M111



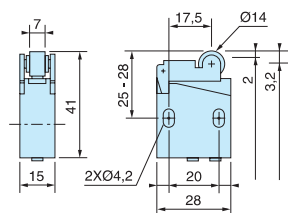
PXC-Z12



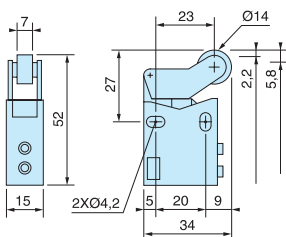
PXC-Z11



PXC-M121 - PXC-M131

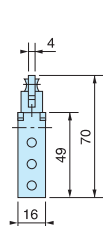


PXC-M521

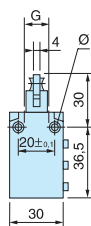
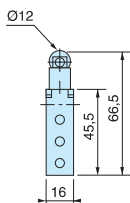
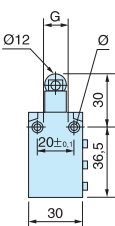


3/2 compact limit switches

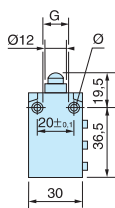
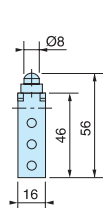
PXC-M601A102



PXC-M601A103



PXC-M601A110



Logic processing

Miniature high-speed valves in stand alone, stackable or combined modules, incorporating standard logic functions. The range also includes timers and impulse modules.

- Complete range
- Stand alone, stackable or combinable modules
- Very fast response time
- Flexible and highly maintainable system
- DIN rail mounting
- Ø 4mm connection

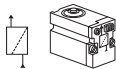


Operating information

Working pressure	3 to 8 bar
Working temperature	-15 °C to 60 °C
Flow (Qmax)	180 l/min (PRD = 60 l/min)
ATEX approval:	CE Ex II 2 GD c 85°C
For ATEX specific products contact Sales Office	
For technical information see CD	

Logic sequencer

Step modules



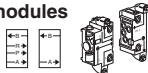
	Order code
Without sub base	PSM-A10
Pneumatic output	PSM-A12
Visual indication of pneumatic output and manual override	PSM-B12
With sub base	PSM-B12
Without manual override	

Step module subbase



	Order code
Subbase	PSB-A12
Additional interlock	PSV-A12

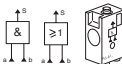
Set of head and tail modules and deviation modules



	Order code
Head & tail set	PSE-A12
Deviation standard	PSD-A12
Deviation for remote	PSD-B12

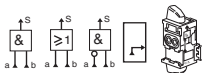
Logic elements

Line mounted elements



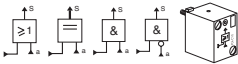
Logic Function	Order code
AND	PLL-A11
OR	PLK-A11
Clip on Din-rail	PZM-L199

Combinable elements



Logic Function	Order code
AND	PLL-B12
OR	PLK-B12
NOT	PLN-B12
INPUT	PLE-B12

Subbase mounted elements



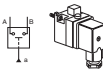
Logic Function	Order code
AND	PLL-C10
NOT inhibit standard	PLN-C10
NOT inhibit threshold	PLN-D10
OR	PLK-C10
YES regenerated	PLJ-C10

3 port subbase to be ordered separately.

Logic relays

Pressure switch

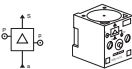
To be used with 3 port subbase



	Order code
With subbase	PRE-A12
Without subbase	PRE-A10

Amplifier relays

To be used with 4 port subbase



	Order code
With subbase	PRD-A12
Without subbase	PRD-A10

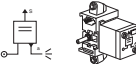
Memory relays

To be used with 4 port subbase



	Order code
With subbase	PLM-A12
Without subbase	PLM-A10

Sensor relays

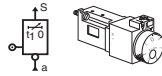


	Order code
With subbase	PRF-A12
Without subbase	PRF-A10

 Indicates stocked product.

Time delay relays

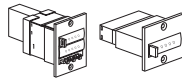
To be mounted on 3 port subbase



Function	Timing	Order code
Output after timed period	0,1 to 3s	PRT-E10
	0,1 to 30s	PRT-A10
	10 to 180s	PRT-B10
With subbase	0,1 to 30s	PRT-A12
Output during timed period	0,1 to 3s	PRT-F10
	0,1 to 30s	PRT-C10
	10 to 180s	PRT-D10

Impulse counters

Flush mounting
Pneumatic or manual reset



	Order code
*Surface mounting	PCT-A11
*Flush mounting	PCT-B11
Surface mounting	PCP-A11

* Totalising counters

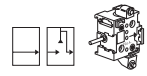


Not elements

Description	Order code
PLNC10 on PZUA12 subbase	PLN-C12
PLND10 on PZUA12 subbase	PLN-D12

Subbase for logic elements and relays

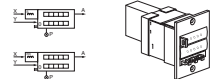
3 port and 4 port subbases



	Order code
Input module	PZU-E12
3 port "common input"	PZU-A12
3 port "cascade"	PZU-C12
4 port subbase*	PZU-B12

* For combination with memory relay and amplified relay.

Timers

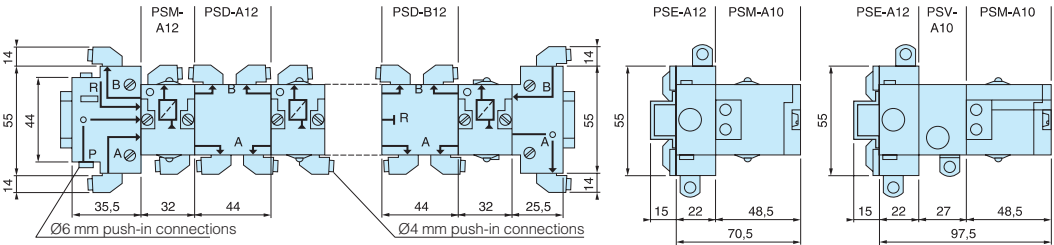


Time base	Time range	Order code
1 second	1 second to 27 hours	PCM-A11
1 minute	1 minute to 69 days	PCM-B11
2 minutes	3 to 100 seconds	PCM-C11
2 minutes	3 to 10 minutes	PCM-D11
2 minutes	3 to 100 minutes	PCM-E11

 Indicates stocked product.

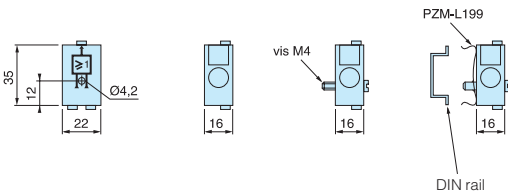
Dimensions, Logic processing

Modular sequencer



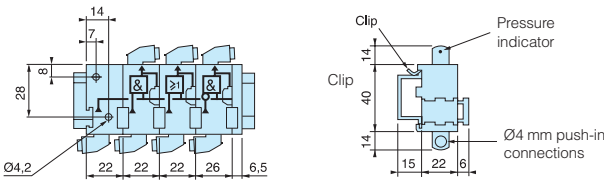
Line mounted logic elements

PLL-A11 and PLK-A11



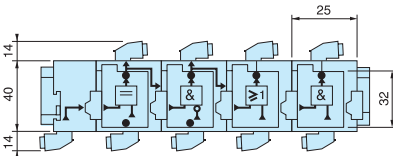
Combinable logic elements

PLE-B12 — PLL-B12 — PLK-B12 and PLN-B12

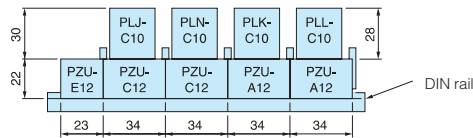


Logic elements mounted on 3-port modular subbases

PZU-E12



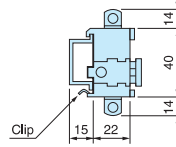
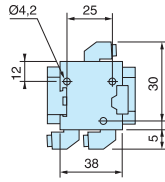
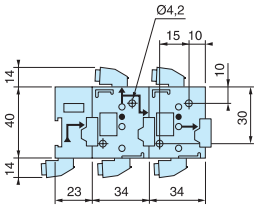
PLJ-C10 — PLN-C10 — PLK-C10 and PLL-C10 mounted on PZU-C12 and PZU-A12



3 and 4-port modular subbases

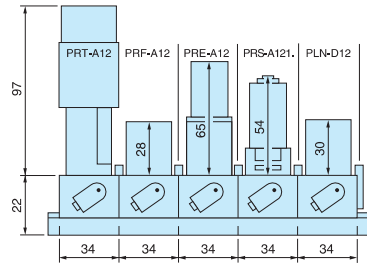
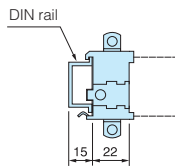
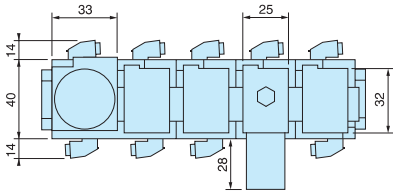
PZU-E12 — PZU-C12 — PZU-A12

PZU-B12



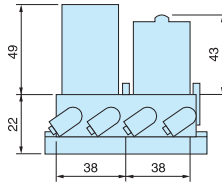
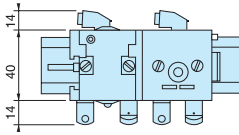
Relays mounted on 3-port modular subbases

PRT-A12 — PRF-A12 — PRE-A12 — PRS-A121 and PLN-D12



Relays mounted on 4-port modular subbases

PLM-A12 and PRD-A12

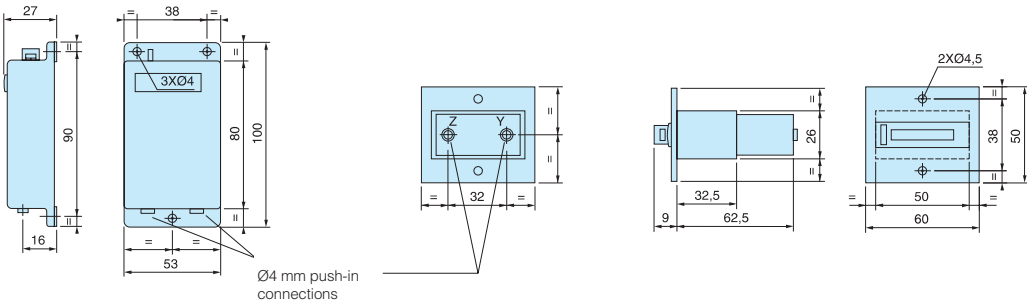


Logic processing

Totalising counters

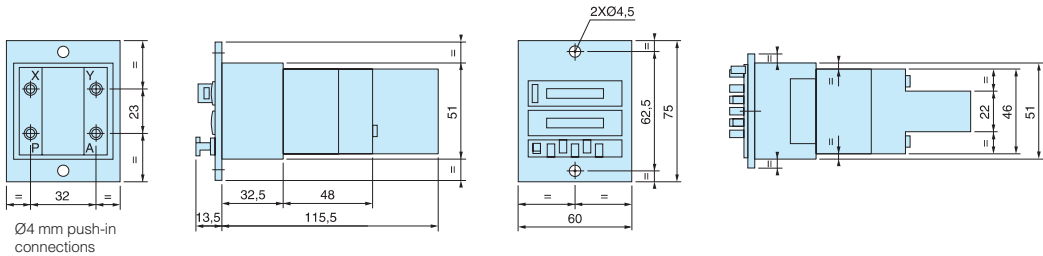
PCT-A11

PCT-B11



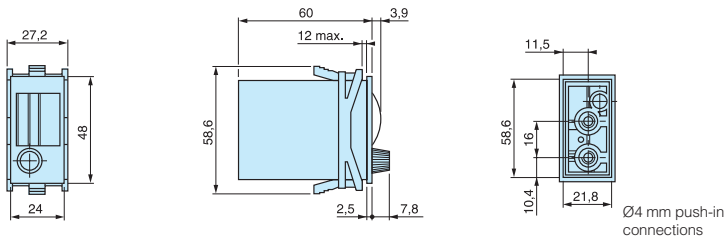
Digital display timers

PCM-A11 to PCM-B11



Timers with calibrated dial

PCM-F11 and PCM-G11



High flow shut off valves for isolating downstream equipment. Air pilot or solenoid actuated versions available.

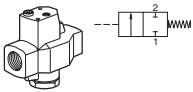
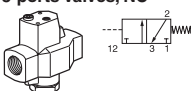
- In line installation
- High flow
- Internal supply for signal air
- Suitable as main shut-off or as power valve for cylinder and air motor
- Optional low-pressure hydraulic version



Operating information

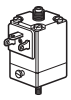
	VE22/23	VE42/43	VE82/83
Working pressure	Max 10 bar	Max 10 bar	Max 10 bar
Working temperature	-10 °C to +70 °C		
Flow, C=	5,4 l/s, bar	20,3 l/s, bar	52 l/s, bar
(acc. to ISO 6358)	(b=0,4)	(b=0,4)	(b=0,35)
Qn=	24,5 l/s	92 l/s	228 l/s
Qmax=	37,8 l/s	142,1 l/s	364 l/s
Signal pressure at 6 bar	Min 3,5 bar	Min 3,5 bar	Min 3 bar
Port 3 must not be plugged or pressurised			
Prelubricated, further lubrication is not normally necessary			
If additional lubrication is introduced it must be continued			

Airline Isolator Valves, VE22-83 series

Type	Symbol	Actuator	Return	Operating pressure, at 6 bar	Port size	Order code
2-port valves, NC 		Air pilot	Spring	3,5	G1/4	VE22-A-S-5*
		Air pilot	Spring	3,5	G1/2	VE22-A-S-5-BOO
						VE42-A-S-5*
						VE42-A-S-5-BOO
3-ports valves, NC 		Air pilot	Spring	3,5	G1/4	VE23-A-S-5*
		Air pilot	Spring	3,5	G1/2	VE43-A-S-5*
		Air pilot	Spring	3,5	G1	VE83-A-S-5*

* For electrically actuated, please order 1 pcs adaptor set, 1 pcs solenoid VE13 and 1 pcs cable connector

Solenoid 32mm form A without cable plug

NC	Voltage	Order code
	24 VDC	VE13-ESC042C2
	24 VAC 50Hz	VE13-ESC044C2
	110 VAC 50Hz	VE13-ESC044E2
	220 VAC 50Hz	VE13-ESC044H2
	240 VAC 50Hz	VE13-ESC044K2

Adaptor set for VE13-ES

	Order code
	4145064590

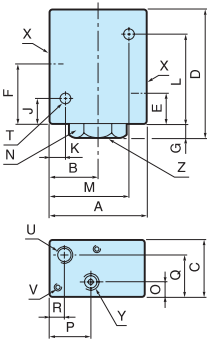
Cable plug, suitable for VE13

Description	Order code
24V, LED+Diode	9125998004
24V AC/DC, LED+VDR	9125998006
110V AC/DC, LED+VDR	9125998008
240V AC/DC, LED+VDR	9125998010
Black	9125998011

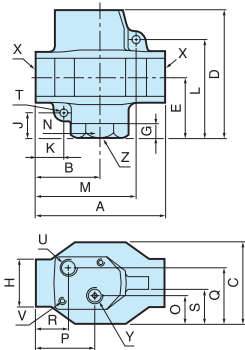
 Indicates stocked product.

Dimensions, Airline Isolator Valves

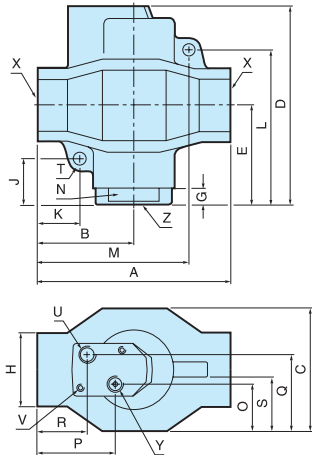
VE22/VE23



VE42/VE43



VE82/VE83



Type	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S
VE22/VE23	60	30	35	82,5	21	36	6	-	14	10	54	50	30	9,0	26,0	26,0	9,0	-
VE42/43	82	41	50	88,8	40	-	8	30	17	18	63	64	30	16,5	38,5	33,5	21,5	21,0
VE82/VE83	120	60	75	133,3	60	-	10	45	26	26	94	94	45	29,0	46,5	46,0	29,5	32,5

Type	T	U	V	X	Y	Z
VE22/VE23	6,5	G1/8	M4	G1/4	G1/8	G1/4
VE42/43	6,5	G1/8	M4	G1/2	G1/8	G1/2
VE82/VE83	8,5	G1/8	M4	G1	G1/8	G1

Ergonomically designed units to provide protection against accidental operation of machines. Completely sealed units prevent tampering and comply with latest European safety standards.

- Ergonomic design
- Robust polymer or metal enclosure
- Meets requirements for protection against accidental operation and tampering
- Metal enclosure features a wrist-rest bar which helps prevent illness due to repetitive actions
- Conforms to EN574 and EN954-1 requirements



Operating information

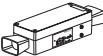
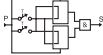
Working pressure	3 to 8 bar
Working temperature	-5 °C to +60 °C
For technical information see CD	

Control module only

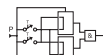
Symbol	Connections	Order code
 	Ø4 mm Push-in	PXP-A11

Complete units

Polymer enclosure, with two Ø40 mm push button with protective guards and control module

Symbol	Connections	Number of control modules	Order code
 	Ø4 mm Push-in	1	PXP-C111
	Ø4 mm Push-in	2	PXP-D121

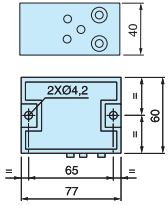
Metal enclosure, with two Ø60 push buttons, wrist restbar, built in protective guard and control module

Symbol	Connections	Number of control modules	Order code
 	Push-in Ø6 mm for supply Ø4 mm for output	1	PXP-S111
	Push-in Ø6 mm for supply Ø4 mm for output	2	PXP-S121

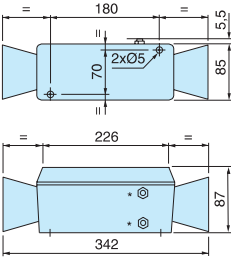
 Indicates stocked product.

Dimensions

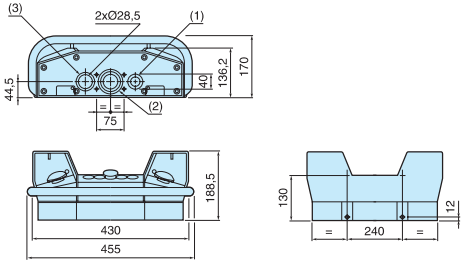
PXP-A11



PXP-C111 and PXP-D121



PXP-S111 and PXP-S121



* Ø4 mm push-in connections
 ** Ø6 mm push-in connections

Air Preparation and Control Accessories



Moduflex FRLs

Stainless Steel FRLs



MPT40

Cylinder Controls



Moduflex FRLs

The Moduflex modular air preparation system is constructed out of aluminium providing the advantages of both lightweight and strength.

Combinations may be assembled quickly and easily, the individual units combine face to face with no intermediate block and

No increase in overall dimension.

The unique 'Cliplok' fastener enables combinations of units to be built in a fraction of the time taken by more traditional systems.

The unique one piece body design overcomes the need for a separate bowl, large sight slots are provided as standard.



Body ported as standard with alternative port sizes via optional port blocks.

'Cliploks' locate and fix units in combination, allowing easy removal for servicing with no width penalty.

Manual, semi-automatic and fully automatic drain options are available, recessed into the base plate for extra safety & protection from damage.

Filter

Moduflex Series standard Filter units feature 5 micron elements as standard with a 40 micron option.



Options include Coalescing units for the removal of oil and water aerosols and Adsorber units with activated carbon elements for the removal of hydrocarbon vapours.



Regulator

The Moduflex Series Regulators feature precise control with low hysteresis.

The rolling diaphragms also provide longer service life than flat diaphragm designs.



An optional version of the regulator may be Manifold Mounted for common inlet installations, providing any number of subsidiary p2 pressures.

Lubricator

The Moduflex Series Lubricators provide constant, controlled lubrication to down stream equipment, increasing service life and reducing down time.

Moduflex Series Oil Mist type lubricators offer up to twice the oil capacity than traditional designs.



Filter/Regulator

Moduflex Series Filter-Regulators combine precise control with precise control with the advantages of integral filtration.

The ideal solution to space saving in combined installations.

Optional tamperproof kit for Regulators and Filter/Regulators



Soft Start Valves



Moduflex Series Combined Soft Start/Dump Valves, provide for the safe introduction of pressure to machines or systems.

Soft Start/Dump Valves when set, allow the pressure to gradually build to the set point before fully opening to deliver full flow at line pressure.

Dump Valves



Moduflex Series Dump Valves enable the depressurisation of downstream air in the event of an emergency or system failure. They are provided with high visibility large red striker knobs and vent through the exhaust port.

Moduflex Series Dump Valves may be used as stand alone units or assembled into Moduflex combination units.

Ball Valves



Moduflex Series Ball Valves provide shut off line pressure with non-sticking 90° turn handle locking versions to prevent unauthorised adjustment. When the inlet pressure is turned off the downstream vent through the exhaust port.

'Cliplock System'



The unique 'Cliplok' allows units to be pipe connected together, without the use of connectors, saving space whilst providing constant mounting centres.

For wall mounting 'Cliplocks' with integral wall brackets are available. They are assembled in exactly the same way and are locked in position with a sliding clip. Wall mounted 'Cliplocks' can be left attached to the wall and the unit will slide off, once the sliding clips have been lifted.

Optional Port Block Kits



To change port sizes a selection of Port Block Kits which are attached to any unit with 'Cliplok' system. Allows assemblies to be removed from a hard piped system.

Rear Entry Connector Kits



The Rear Entry Connector is available in G1/2. port size and enables single units or combinations to be mounted on a bulkhead with the air connections made from the rear.



'Cliplocks' locate and fix units in combination, allowing easy removal for servicing with no width penalty.



Off the Shelf Air Preparation

- Boxed set combinations available
- Air service sets with mounting brackets and pressure gauge
- High efficiency water and particle removal
- Rolling diaphragm for extended life
- No tools for servicing
- Easy to service filter cartridge



Body ported as standard with a choice of BSPP, BSPT and NPT threadforms

Manual, semi-auto and automatic drain options are available.

Large sights provided as standard

Standard filter units feature 5 micron element.

Condensate bowl

One hand operation for easy servicing, no small easily lost part to worry about.



ATEX approval:
CE Ex II 3 GD
Safety norms:
ISO 4414 EN 983

Moduflex Series Filter Elements

Moduflex Series standard Filter units feature 5 micron elements as standard.

Options include Coalescing units for the removal of oil and water aerosols and Adsorber units with activated carbon elements for the removal of hydrocarbon vapours.

The unique one piece body design overcomes the need for a separate bowl. Featuring an easy to use 1/8 turn base plate for filter element removal with positive latch to ensure correct and safe refitting.

The element cartridge is a snap fit, one piece cartridge assembly which is easy to remove and replace for servicing, no tools required.



Filter + Regulator + Lubricator

	Port size	Description	P3H Series	P3K Series	P3M Series
	1/4	Manual drain	P3HCB12SEMNGLMB		
	1/4	Semi auto drain	P3HCB12SESNGLMB		
	1/2	Manual drain		P3KCB14SEMNGLMB	
	1/2	Semi auto drain		P3KCB14SESNGLMB	
	1/2	Auto drain		P3KCB14SEANGLMB	
	3/4	Manual drain			P3MCB16SEMNGLMB
	3/4	Auto drain			P3MCB16SEANGLMB
	1"	Manual drain			P3MCB18SEMNGLMB
	1"	Auto drain			P3MCB18SEANGLMB

Ball Valve + Filter/Regulator

	Port size	Description	P3H Series	P3K Series	P3M Series
	1/4	Manual drain	P3HAN12SEMNGB		
	1/4	Semi auto drain	P3HAN12SESNGB		
	1/2	Manual drain		P3KAN14SEMNGB	
	1/2	Semi auto drain		P3KAN14SESNGB	
	1/2	Auto drain		P3KAN14SEANGB	
	3/4	Manual drain			P3MAN16SEMNGB
	3/4	Auto drain			P3MAN16SEANGB
	1"	Manual drain			P3MAN18SEMNGB
	1"	Auto drain			P3MAN18SEANGB

Ball Valve + Filter/Regulator + Lubricator

	Port size	Description	P3H Series	P3K Series	P3M Series
	1/4	Manual drain	P3HAA12SEMNGLMB		
	1/4	Semi auto drain	P3HAA12SESNGLMB		
	1/2	Manual drain		P3KAA14SEMNGLMB	
	1/2	Semi auto drain		P3KAA14SESNGLMB	
	1/2	Auto drain		P3KAA14SEANGLMB	
	3/4	Manual drain			P3MAA16SEMNGLMB
	3/4	Auto drain			P3MAA16SEANGLMB
	1"	Manual drain			P3MAA18SEMNGLMB
	1"	Auto drain			P3MAA18SEANGLMB

Filter/Regulator + Lubricator

	Port size	Description	P3H Series	P3K Series	P3M Series
	1/4	Manual drain	P3HCA12SEMNGLMB		
	1/4	Semi auto drain	P3HCA12SESNGLMB		
	1/2	Manual drain		P3KCA14SEMNGLMB	
	1/2	Semi auto drain		P3KCA14SESNGLMB	
	1/2	Auto drain		P3KCA14SEANGLMB	
	3/4	Manual drain			P3MCA16SEMNGLMB
	3/4	Auto drain			P3MCA16SEANGLMB
	1"	Manual drain			P3MCA18SEMNGLMB
	1"	Auto drain			P3MCA18SEANGLMB

All combination sets include: pressure gauge and mounting brackets.
Other combinations available on request.

Moduflex FRLs

Standard Filter

- Integral 1/8, 1/4, 3/8, 1/2, 3/4 or 1" ports (BSPP & NPT)
- High efficiency 5 micron element as standard
- Excellent water removal efficiency
- Robust but lightweight aluminium construction
- One hand operation for easy element cartridge removal
- Positive bayonet latch to ensure correct & safe fitting
- No small easily lost parts
- No tools required for servicing



Operating Information

Flow:	P3H Series	P3K Series	P3M Series			
	1/8	1/4	3/8	1/2	3/4	1"
	15 l/s	18 l/s	45 l/s	50 l/s	80 l/s	101 l/s

Flow with 6.3 bar inlet and 0.5 bar pressure drop.

Working pressure:	Max 17 bar
Working temperature:	-20 to +80 °C
ATEX approval:	CE Ex II 3 GD

For ATEX specific products contact Sales Office

Filters - 5 micron element

	Port size	Description	Order code		
			P3H Series	P3K Series	P3M Series
	1/8	Manual drain	P3HFA11ESMN		
	1/8	Semi auto drain	P3HFA11ESSN		
	1/4	Manual drain	P3HFA12ESMN		
	1/4	Semi auto drain	P3HFA12ESSN		
	3/8	Manual drain		P3KFA13ESMN	
	3/8	Semi auto drain		P3KFA13ESSN	
	3/8	Auto drain		P3KFA13ESAN	
	1/2	Manual drain		P3KFA14ESMN	P3MFA14ESMN
	1/2	Semi auto drain		P3KFA14ESSN	
	1/2	Auto drain		P3KFA14ESAN	P3MFA14ESAN
	3/4	Manual drain			P3MFA16ESMN
	3/4	Auto drain			P3MFA16ESAN
	1"	Manual drain			P3MFA18ESMN
	1"	Auto drain			P3MFA18ESAN

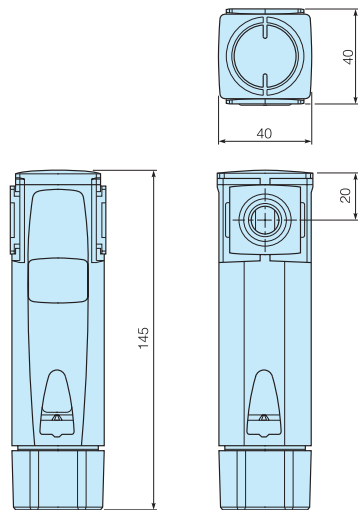
Service kits

Description	Order code		
	P3H Series	P3K Series	P3M Series
5 micron element kit	P3HKA00ESE	P3KKA00ESE	P3MKA00ESE
Sight glass & manual drain kit	P3HKA00BSM	P3KKA00BSM	P3MKA00BSM
Sight glass & semi-auto drain kit	P3HKA00BSS	P3KKA00BSS	P3MKA00BSS
Sight glass & auto drain kit		P3KKA00BSA	P3MKA00BSA

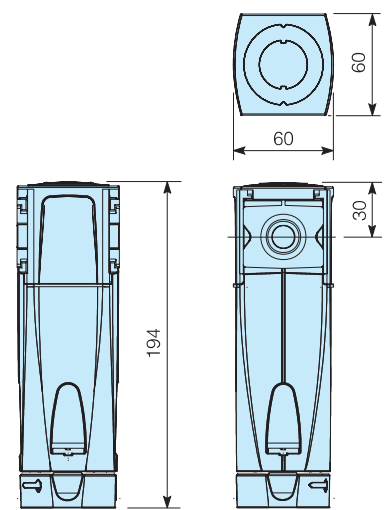
Material Specification

Body:	Aluminium
Sight glass:	Technopolymer
Body cover:	Polyester
Element:	Sintered polypropylene
Elastomers:	Nitrile NBR
Bayonet support:	Nylon
Drain:	Acetal

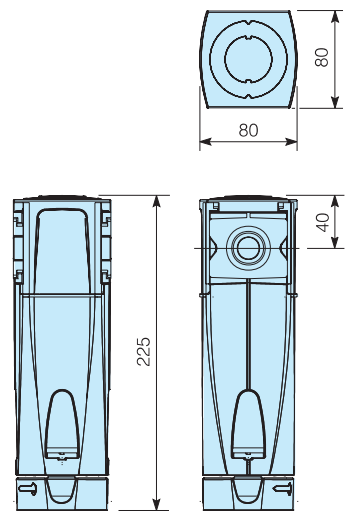
P3H - Dimensions (mm)



P3K - Dimensions (mm)



P3M - Dimensions (mm)



Moduflex FRLs

Coalescing Filters

- Integral 1/8, 1/4, 3/8, 1/2, 3/4 or 1" ports (BSPP & NPT)
- Removes liquid aerosols and sub micron particles
- Oil free air for critical applications, such as air gauging, pneumatic instrumentation and control
- 0.01µm element as standard (coalescer)
- Differential Pressure Indicator (DPI) as standard on Coalescing Filters
- One hand operation for easy element cartridge removal
- Positive bayonet latch to ensure correct & safe fitting
- No tools required for servicing

Note: To optimise the life of coalescing element, it is advisable to install a P3KFA / P3M FA pre-filter with a 5 micron element upstream of the coalescing filter.



Operating Information

Flow:	P3H Series		P3K Series		P3M Series		
	1/8	1/4	3/8	1/2	1/2	3/4	1"
	3.5 l/s	4 l/s	15 l/s	16 l/s	44 l/s	57 l/s	58 l/s

Flow with 6.3 bar inlet and 0.2 bar pressure drop.

Working pressure:	Max 17 bar
Working temperature:	-20 to +66 °C
ATEX approval:	CE Ex II 3 GD

For ATEX specific products contact Sales Office

Coalescing Filters - 0.01 micron element

Port size	Description	Order code		
		P3H Series	P3K Series	P3M Series
	1/8 Manual drain	P3HFA11DSMN		
	1/8 Semi auto drain	P3HFA11DSSN		
	1/4 Manual drain	P3HFA12DSMN		
	1/4 Semi auto drain	P3HFA12DSSN		
	3/8 Manual drain		P3KFA13DSMN	
	3/8 Auto drain		P3KFA13DSAN	
	1/2 Manual drain		P3KFA14DSMN	P3MFA14DSMN
	1/2 Auto drain		P3KFA14DSAN	P3MFA14DSAN
	3/4 Manual drain			P3MFA16DSMN
	3/4 Auto drain			P3MFA16DSAN
	1" Manual drain			P3MFA18DSMN
	1" Auto drain			P3MFA18DSAN

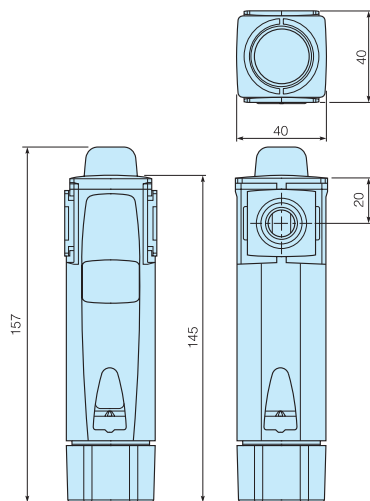
Service kits

Description	Order code		
	P3H Series	P3K Series	P3M Series
0.01 micron coalescing element kit	P3HKA00ESC	P3KKA00ESC	P3MKA00ESC
Sight glass & manual drain kit	P3HKA00BSM	P3KKA00BSM	P3MKA00BSM
Sight glass & semi-auto drain kit	P3HKA00BSS	P3KKA00BSS	P3MKA00BSS
Sight glass & auto drain kit		P3KKA00BSA	P3MKA00BSA
Differential pressure indicator kit	P3HKA00RQ	P3KKA00RQ	P3MKA00RQ

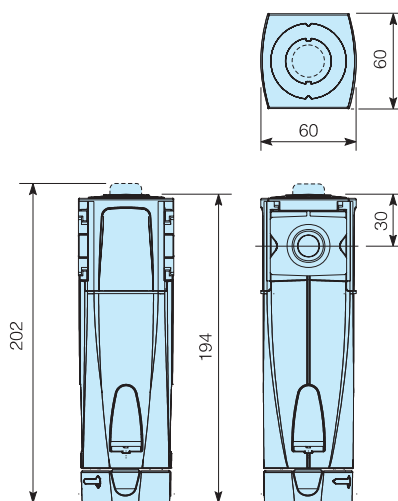
Material Specification

Body:	Aluminium		
Sight glass:	Technopolymer		
Filter cover:	Polyester		
Coalescing Element:	Borosilicate & felt glass fibres		
Elastomers:	Nitrile NBR		
Bayonet support:	P3H	P3K	P3M
	Nylon	Acetal	Nylon
Drain:	Acetal		

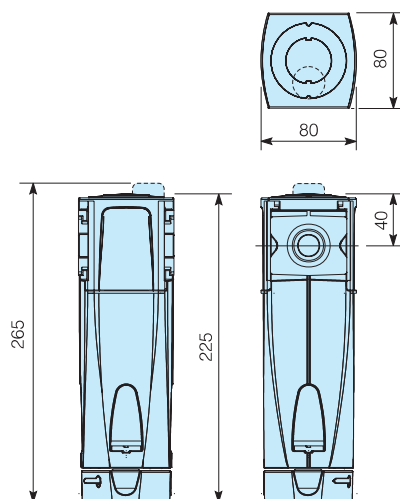
P3H - Dimensions (mm)



P3K - Dimensions (mm)



P3M - Dimensions (mm)



Moduflex FRLs

Adsorber Filters

- Integral 1/8, 1/4, 3/8, 1/2, 3/4 or 1" ports (BSPP & NPT)
- Adsorbing activated carbon element removes oil vapours and most hydrocarbons.
- Robust but lightweight aluminium construction
- One hand operation for easy element cartridge removal
- Positive bayonet latch to ensure correct & safe fitting
- No tools required for servicing



Operating Information

Flow:	P3H Series		P3K Series		P3M Series		
	1/8	1/4	3/8	1/2	1/2	3/4	1"
	6 l/s	8 l/s	21 l/s	28 l/s	37 l/s	41 l/s	42 l/s

Flow with 6.3 bar inlet and 0.2 bar pressure drop.

Working pressure: Max 17 bar
Working temperature: -20 to +50 °C
ATEX approval: CE Ex II 3 GD

For ATEX specific products contact Sales Office

Adsorber Filters - activated charcoal element

	Port size	Description	Order code		
			P3H Series	P3K Series	P3M Series
	1/8	Manual drain	P3HFA11ASMN		
	1/4	Manual drain	P3HFA12ASMN		
	3/8	Manual drain		P3KFA13ASMN	
	1/2	Manual drain		P3KFA14ASMN	P3MFA14ASMN
	3/4	Manual drain			P3MFA16ASMN
	1"	Manual drain			P3MFA18ASMN

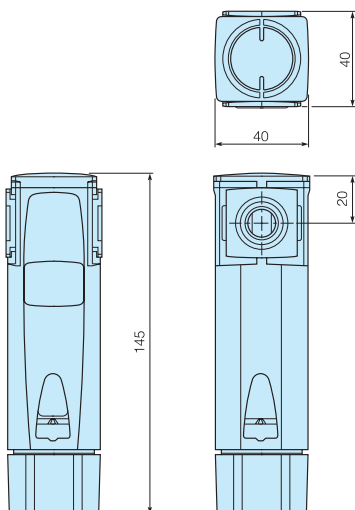
Service kits

Description	Order code		
	P2H Series	P3K Series	P3M Series
Adsorber element kit	P3HKA00ESA	P3KKA00ESA	P3MKA00ESA
Sight glass & manual drain kit	P3HKA00BSM	P3KKA00BSM	P3MKA00BSM
Sight glass & semi-auto drain kit	P3HKA00BSS	P3KKA00BSS	P3MKA00BSS
Sight glass & auto drain kit		P3KKA00BSA	P3MKA00BSA
Differential pressure indicator kit	P3HKA00RQ	P3KKA00RQ	P3MKA00RQ

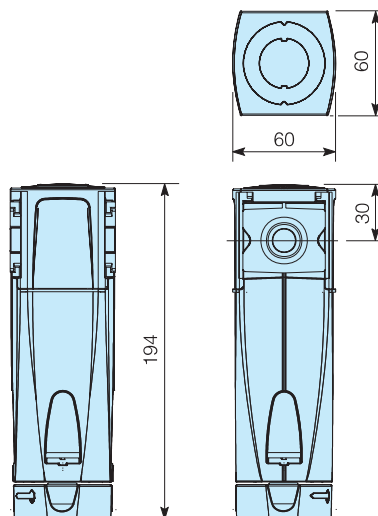
Material Specification

Body:	Aluminium		
Sight glass:	Technopolymer		
Filter cover:	Polyester		
Adsorber Element:	Activated charcoal		
Elastomers:	Nitrile NBR		
Bayonet support:	P3H	P3K	P3M
	Nylon	Acetal	Nylon
Drain:	Acetal		

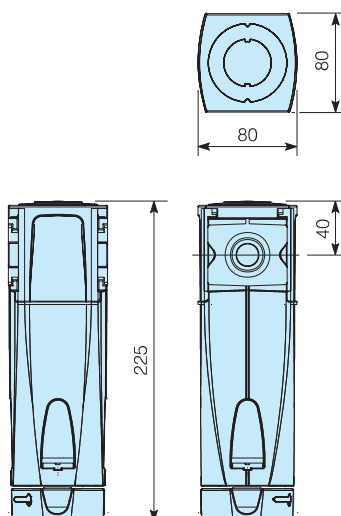
P3H - Dimensions (mm)



P3K - Dimensions (mm)



P3M - Dimensions (mm)



Moduflex FRLs

Regulators

- Integral 1/8, 1/4, 3/8, 1/2, 3/4 or 1" ports (BSPP & NPT)
- Robust but lightweight aluminium construction
- Secondary pressure ranges 2, 4, 8 & 16 bar
- Rolling diaphragm for extended life
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation.
- Padlockable tamperproof kit
- Relieving & Non-relieving types
- Removable non-rising knob for panel mounting and tamper resistance.



Operating Information

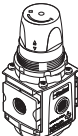
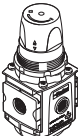
Flow:	P3H Series		P3K Series		P3M Series		
	1/8	1/4	3/8	1/2	1/2	3/4	1"
	15 l/s	29 l/s	63 l/s	73 l/s	100 l/s	129 l/s	130 l/s

Flow with 6.3 bar inlet and 0.5 bar pressure drop.

Working pressure:	Max 17 bar
Working temperature:	-20 to +80 °C
ATEX approval:	CE Ex II 3 GD

For ATEX specific products contact Sales Office

Regulators - 2, 4, 8 and 16 bar pressure and non relieving options available

	Port size	Description	Order code		
			P3H Series	P3K Series	P3M Series
	1/8	8 bar relieving	P3HRA11BNNP		
	1/8	8 bar relieving + gauge	P3HRA11BNGP		
	1/4	8 bar relieving	P3HRA12BNNP		
	1/4	8 bar relieving + gauge	P3HRA12BNGP		
	3/8	8 bar relieving		P3KRA13BNNP	
	3/8	8 bar relieving + gauge		P3KRA13BNGP	
	1/2	8 bar relieving		P3KRA14BNNP	P3MRA14BNNN
	1/2	8 bar relieving + gauge		P3KRA14BNGP	P3MRA14BNGN
	1/2	2 bar relieving		P3KRA14BNYP	
	1/2	4 bar relieving		P3KRA14BNLP	
	1/2	16 bar relieving		P3KRA14BNHP	
	3/4	8 bar relieving			P3MRA16BNNN
	3/4	8 bar relieving + gauge			P3MRA18BNGN
	1"	8 bar relieving			P3MRA18BNNN
	1"	8 bar relieving + gauge			P3MRA18BNGN
	1"	2 bar relieving			P3MRA18BNLN
	1"	4 bar relieving			P3MRA18BNLN
	1"	16 bar relieving			P3MRA18BNHN

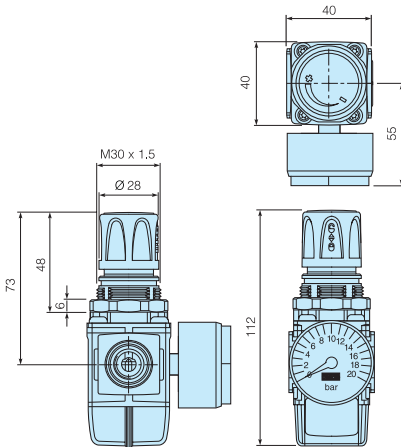
Service kits

Description	Order code		
	P3H Series	P3K Series	P3M Series
Angle bracket + metal lock ring	P3HKA00MS	P3KKA00MS	P3MKA00MS
Angle bracket + plastic lock ring	P3HKA00MR	P3KKA00MR	
Panel Mounting nut (aluminium)	P3HKA00MM	P3KKA00MM	P3MKA00MM
Plastic lock ring	P3HKA00MP	P3KKA00MP	
Diaphragm kit (relieving)	P3HKA00RR	P3KKA00RR	P3MKA00RR
Diaphragm kit (non-relieving)	P3HKA00RN	P3KKA00RN	P3MKA00RN
Lockable tamperproof kit	P3HKA00AL	P3KKA00AL	P3MKA00AL
Tamperproof knob kit	P3HKA00AT	P3KKA00AT	P3MKA00AT

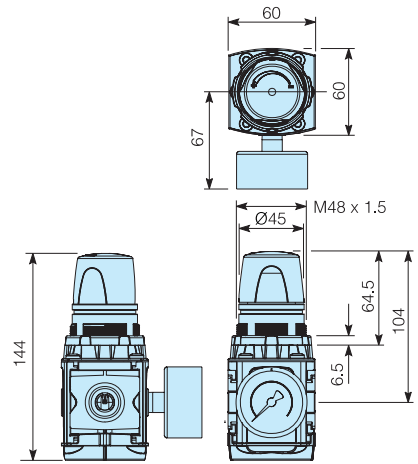
Material Specification

Body:	Aluminium
Bonnet:	Glass filled polyamide
Regulator cover:	Polyester
Control Knob:	Polyamide
Valve:	Composite
Elastomers:	Nitrile NBR
Screws:	Steel / zinc plated

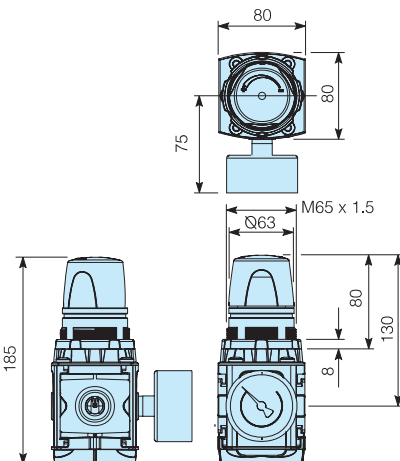
P3H - Dimensions (mm)



P3K - Dimensions (mm)



P3M - Dimensions (mm)



Lockable Tamperproof Kit

This facilitates the tamperproofing of the Regulator and Filter-Regulator units. The hinged black part clamps over the control knob and is locked in place by sliding over the yellow cover.

Four pad lock location holes are provided for added security if required.



Order code	P3H Series	P3K Series	P3M Series
	P3HKA00AL	P3KKA00AL	P3MKA00AL

Note: Pad lock not included

Moduflex FRLs

Filter Regulators

- Integral 1/8, 1/4, 3/8, 1/2, 3/4 or 1" ports (BSPP & NPT)
- High efficiency 5 micron element as standard (optional 40 micron)
- Excellent water removal efficiency
- Robust but lightweight aluminium construction
- One hand operation for easy element cartridge removal
- Positive bayonet latch to ensure correct & safe fitting
- No tools required for servicing filter element
- Secondary pressure ranges 2, 4, 8 and 16 bar
- Rolling diaphragm for extended life
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation.



Operating Information

Flow:	P3H Series		P3K Series		P3M Series		
	1/8	1/4	3/8	1/2	1/2	3/4	1"
	15 l/s	25 l/s	48 l/s	61 l/s	113 l/s	120 l/s	120 l/s

Flow with 6.3 bar inlet and 1 bar pressure drop.

Working pressure:	Max 17 bar
Working temperature:	-20 to +80 °C
ATEX approval:	CE Ex II 3 GD

For ATEX specific products contact Sales Office

Filter/Regulators - 2, 4 and 16 bar and non relieving options available

	Port size	Description	Order code		
			P3H Series	P3K Series	P3M Series
	1/8	8 bar relieving, manual drain	P3HEA11ESMBNNP		
	1/8	8 bar relieving, semi auto drain	P3HEA11ESSBNNP		
	1/8	8 bar relieving, gauge, manual drain	P3HEA11ESMBNGP		
	1/8	8 bar relieving, gauge, semi auto drain	P3HEA11ESSBNGP		
	1/4	8 bar relieving, manual drain	P3HEA12ESMBNNP		
	1/4	8 bar relieving, semi auto drain	P3HEA12ESSBNNP		
	1/4	8 bar relieving, gauge, manual drain	P3HEA12ESMBNGP		
	1/4	8 bar relieving, gauge, semi auto drain	P3HEA12ESSBNGP		
	3/8	8 bar relieving, manual drain		P3KEA13ESMBNNP	
	3/8	8 bar relieving, semi auto drain		P3KEA13ESSBNNP	
	3/8	8 bar relieving, auto drain		P3KEA13ESABNNP	
	3/8	8 bar relieving, gauge, manual drain		P3KEA13ESMBNGP	
	3/8	8 bar relieving, gauge, semi auto drain		P3KEA13ESSBNGP	
	3/8	8 bar relieving, gauge, auto drain		P3KEA13ESABNGP	
	1/2	8 bar relieving, manual drain		P3KEA14ESMBNNP	P3MEA14ESMBNNN
	1/2	8 bar relieving, semi auto drain		P3KEA14ESSBNNP	
	1/2	8 bar relieving, auto drain		P3KEA14ESABNNP	P3MEA14ESABNNN
	1/2	16 bar relieving, manual drain		P3KEA14ESMBNHP	
	1/2	8 bar relieving, gauge, manual drain		P3KEA14ESMBNGP	P3MEA14ESMBNGN
	1/2	8 bar relieving, gauge, semi auto drain		P3KEA14ESSBNGP	
	1/2	8 bar relieving, gauge, auto drain		P3KEA14ESABNGP	P3MEA14ESABNGN
	3/4	8 bar relieving, manual drain			P3MEA16ESMBNNN
	3/4	8 bar relieving, auto drain			P3MEA16ESABNNN
	3/4	8 bar relieving, gauge, manual drain			P3MEA16ESMBNGN
	3/4	8 bar relieving, gauge, auto drain			P3MEA16ESABNGN
	1"	8 bar relieving, manual drain			P3MEA18ESMBNNN
	1"	8 bar relieving, auto drain			P3MEA18ESABNNN
	1"	16 bar relieving, manual drain			P3MEA18ESMBNHN
	1"	8 bar relieving, gauge, manual drain			P3MEA18ESMBNGN
	1"	8 bar relieving, gauge, auto drain			P3MEA18ESABNGN

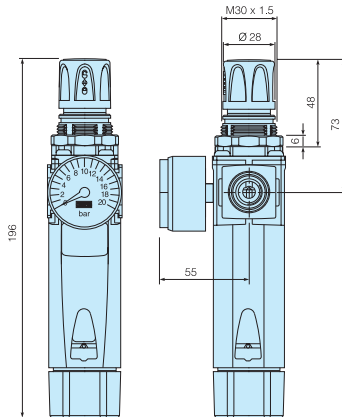
Service kits

Description	Order code		
	P3H Series	P3K Series	P3M Series
5 micron element kit	P3HKA00ESE	P3KKA00ESE	P3MKA00ESE
Sight glass & manual drain	P3HKA00BSM	P3KKA00BSM	P3MKA00BSM
Sight glass & semi-auto drain	P3HKA00BSS	P3KKA00BSS	P3MKA00BSS
Sight glass & auto drain		P3KKA00BSA	P3MKA00BSA
Angle bracket + metal lock ring	P3HKA00MS	P3KKA00MS	P3MKA00MS
Angle bracket + plastic lock ring	P3HKA00MR	P3KKA00MR	
Panel Mounting nut (aluminium)	P3HKA00MM	P3KKA00MM	P3MKA00MM
Diaphragm kit (relieving)	P3HKA00RR	P3KKA00RR	P3MKA00RR
Diaphragm kit (non-relieving)	P3HKA00RN	P3KKA00RN	P3MKA00RN
Lockable tamperproof kit	P3HKA00AL	P3KKA00AL	P3MKA00AL
Tamperproof knob kit	P3HKA00AT	P3KKA00AT	P3MKA00AT

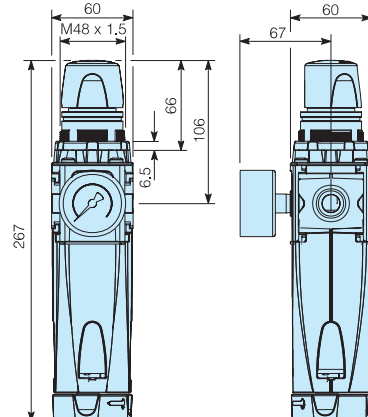
Material Specification

Body:	Aluminium		
Sight glass:	Technopolymer		
Body cover:	Polyester		
Element:	Sintered polypropylene		
Elastomers:	Nitrile NBR		
Bayonet support:	Acetal		
Drain:	Acetal		
Bayonet support:	P3H	P3K	P3M
	Nylon	Acetal	Nylon
Control knob:	Polyamide		
Valve:	Composite		
Screws:	Steel/ zinc plated		

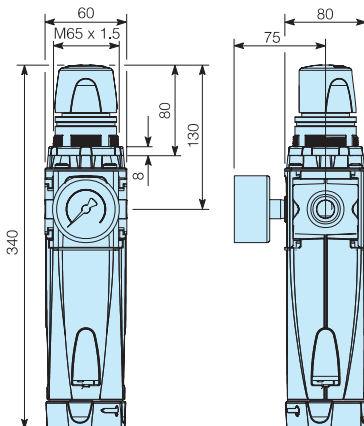
P3H - Dimensions (mm)



P3K - Dimensions (mm)



P3M - Dimensions (mm)



Moduflex FRLs

Lubricators

- Integral 1/8, 1/4, 3/8, 1/2, 3/4 or 1" ports (BSPP & NPT)
- Robust but lightweight aluminium construction
- Proportional oil delivery over a wide range of air flows.
- Finger tip ratchet control for precise oil drip rate adjustment
- Fill from top under system pressure (P3K / P3M series only)
- '2 stage' bayonet to reveal large filling orifice
- Large oil reservoir



Operating Information

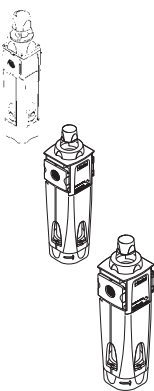
Flow:	P3H Series		P3K Series		P3M Series		
	1/8	1/4	3/8	1/2	1/2	3/4	1"
	13 l/s	26 l/s	44 l/s	70 l/s	87 l/s	103 l/s	108 l/s

Flow with 6.3 bar inlet and 0.5 bar pressure drop.

Working pressure: P3H Max 10 bar
P3K / P3M Max 17 bar
Working temperature: -20 to +80 °C
ATEX approval: CE Ex II 3 GD
For ATEX specific products contact Sales Office

Lubricators

Port size	Description	Order code		
		P3H Series	P3K Series	P3M Series
1/8	Oil mist	P3HLA11LSMN		
1/4	Oil mist	P3HLA12LSMN		
3/8	Oil mist, fill under pressure		P3KLA13LSMN	
1/2	Oil mist, fill under pressure		P3KLA14LSMN	P3MLA14LSMN
3/4	Oil mist, fill under pressure			P3MLA16LSMN
1"	Oil mist, fill under pressure			P3MLA18LSMN



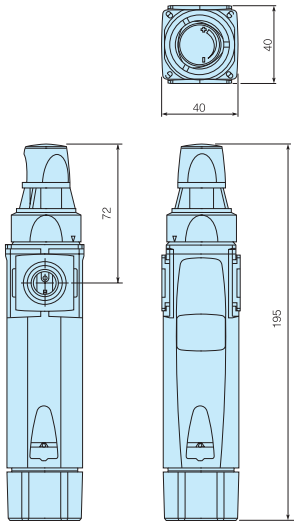
Service kits

Description	Order code		
	P3H Series	P3K Series	P3M Series
Sight glass & manual drain kit	P3HKA00BSM	P3KKA00BSM	P3MKA00BSM
Drip control assembly kit	P3HKA00PG	P3KKA00PG	P3MKA00PG

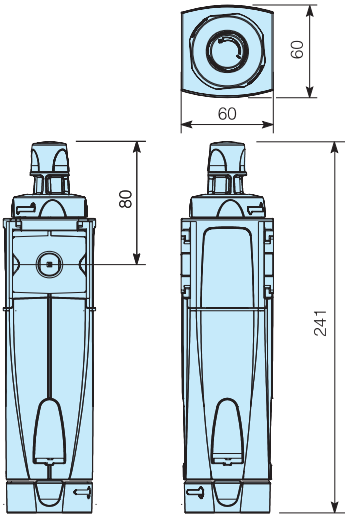
Material Specification

Body:	Aluminium
Bowl sight glass:	Technopolymer
Sight dome:	Technopolymer
Lubricator cover:	Polyester
Bayonet support:	Nylon
Drain:	Acetal
Elastomers:	Nitrile NBR

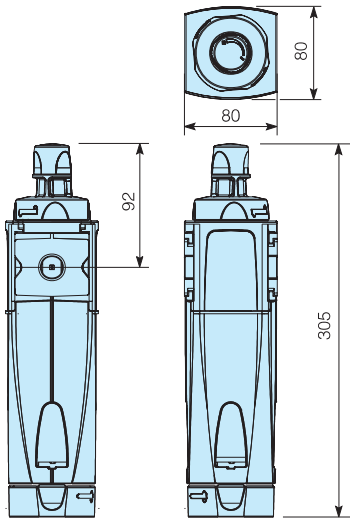
P3H - Dimensions (mm)



P3K - Dimensions (mm)



P3M - Dimensions (mm)



Accessories

	Port size	Description	P3H Series	Order code P3K Series	P3M Series
Shut-off Valves					
	1/8	Bistable 3/2 valve with lockout facility	P3HVA11LN		
	1/4	Bistable 3/2 valve with lockout facility	P3HVA12LN		
	3/8	Bistable 3/2 valve with lockout facility		P3KVA13LN	
	1/2	Bistable 3/2 valve with lockout facility		P3KVA14LN	P3MVA14LN
	3/4	Bistable 3/2 valve with lockout facility			P3MVA16LN
	1"	Bistable 3/2 valve with lockout facility			P3MVA18LN
Manifold Regulators - 2, 4, 16 bar options available.					
	1/4	8 bar relieving + Pressure gauge	P3HRA12BNGP		
	3/8	8 bar relieving		P3KHA13BNNP	
	3/8	8 bar relieving + Pressure gauge		P3KHA13BNGP	
	1/2	8 bar relieving		P3KHA14BNNP	
	1/2	8 bar relieving + Pressure gauge		P3KHA14BNGP	
Manual Dump Valves					
	1/4	Bistable 3/2 valve with lockout facility	P3HDA12RLN		
	1/2	Bistable 3/2 valve with lockout facility		P3KDA14RLN	
	1/4	Monostable 3/2 valve with lockout facility	P3HDA12NLN		
Manifold Block					
	1/4	2 air "take off" ports	P3HMA1V0N		
	1/2	4 air "take off" ports		P3KMA1V0N	P3MMA140N
	3/4	4 air "take off" ports			P3MMA160N
	1"	4 air "take off" ports			P3MMA180N

Accessories

Port size	Description	P3H Series	Order code P3K Series	P3M Series
Combined Soft Start/Dump Valves				
1/4	Solenoid operated (not included)	P3HTA12SGN0000		
1/4	24 VDC (Solenoid and cable plug included)	P3HTA12SGNC2CN		
1/4	Air Pilot Operated	P3HTA12PPN		
1/2	Solenoid operated (not included)		P3KTA14SCN0000	P3MTA14SCN0000
1/2	24 VDC (Solenoid and cable plug included)		P3KTA14SCNB2CN	P3MTA14SCNB2CN
1/2	Air Pilot Operated		P3KTA14PPN	P3MTA14PPN
3/4	Solenoid operated (not included)			P3MTA16SCN0000
3/4	24 VDC (Solenoid and cable plug included)			P3MTA16SCNB2CN
3/4	Air Pilot Operated			P3MTA16PPN
1"	Solenoid operated (not included)			P3MTA18SCN0000
1"	24 VDC (Solenoid and cable plug included)			P3MTA18SCNB2CN
1"	Air Pilot Operated			P3MTA18PPN

Soft Start Valves				
1/4	Solenoid operated (not included)	P3HSA12SGN0000		
1/4	24 VDC (Solenoid and cable plug included)	P3HSA12SGNC2CN		
1/4	Internal Air Pilot Operated	P3HSA12Y0N		

Soft Start Valves (CNOMO interface can be fitted with either 22mm or 30mm coils)

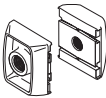
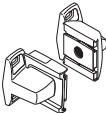
1/2	Solenoid operated (not included)	P3KSA14SCN0000	P3MSA14SCN0000
1/2	24 VDC (Solenoid and cable plug included)	P3KSA14SCNB2CN	P3MSA14SCNB2CN
1/2	Internal Air Pilot Operated	P3KSA14Y0N	P3MSA14Y0N
3/4	Solenoid operated (not included)		P3MSA16SCN0000
3/4	24 VDC (Solenoid and cable plug included)		P3MSA16SCNB2CN
3/4	Internal Air Pilot Operated		P3MSA16Y0N
1"	Solenoid operated (not included)		P3MSA18SCN0000
1"	24 VDC (Solenoid and cable plug included)		P3MSA18SCNB2CN
1"	Internal Air Pilot Operated		P3MSA18Y0N

Remote Operated Dump Valves

1/4	Solenoid operated (not included)	P3HDA12SGN0000		
1/4	24 VDC (Solenoid and cable plug included)	P3HDA12SGNC2CN		
1/4	Air Pilot Operated	P3HDA12PPN		
1/2	Solenoid operated (not included)		P3KDA14SCN0000	P3MDA14SCN0000
1/2	24 VDC (Solenoid and cable plug included)		P3KDA14SCNB2CN	P3MDA14SCNB2CN
1/2	Air Pilot Operated		P3KDA14PPN	P3MDA14PPN
3/4	Solenoid operated (not included)			P3MDA16SCN0000
3/4	24 VDC (Solenoid and cable plug included)			P3MDA16SCNB2CN
3/4	Air Pilot Operated			P3MDA16PPN
1"	Solenoid operated (not included)			P3MDA18SCN0000
1"	24 VDC (Solenoid and cable plug included)			P3MDA18SCNB2CN
1"	Air Pilot Operated			P3MDA18PPN

Moduflex FRLs

Accessories

	Port size	Description	P3H Series	Order code P3K Series	P3M Series
Port Block Kits					
	1/8		P3HKAD1CP		
	1/4		P3HKAD2CP		
	3/8			P3KKAD3CP	
	1/2			P3KKAD4CP	P3MKAD4CP
	3/4				P3MKAD6CP
	1"				P3MKAD8CP
Rear Entry Connector Kits					
	1/2	BSPP		P3KKAR4CR	
	1/2	NPT		P3KKAT4CR	
Modular Connector (Cliplok) Kits					
			P3HKA00CB	P3KKB00CB	P3MKA00CB
Wall Mounting Bracket Connector Kits					
			P3HKA00CW	P3KKB00CW	P3MKA00CW
Din Rail Mounting Kit					
			P3HKA00MD		
Single Unit Mounting Bracket					
			P3HKA00MW	P3KKA00MW	P3MKA00MW
Regulator & Filter Regulator Angle Bracket					
		Angle bracket + plastic nut	P3HKA00MR	P3KKA00MR	
		Angle bracket + metal nut	P3HKA00MS	P3KKA00MS	P3MKA00MS
Panel Mounting Nut					
		Aluminium	P3HKA00MM	P3KKA00MM	P3MKA00MM
Regulator & Filter/Regulator - Tamperproof Kit					
			P3HKA00AL	P3KKA00AL	P3MKA00AL
Pressure Gauges					
	1/8	0 to 2 bar	P3D-KAB1AYN		
	1/8	0 to 4 bar	P3D-KAB1ALN		
	1/8	0 to 10 bar	P3D-KAB1ANN		
	1/8	0 to 20 bar	P3D-KAB1AHN		
	1/4	0 to 4 bar		P6G-ERB2040	P6G-ERB2040
	1/4	0 to 11 bar		P6G-ERB2110	P6G-ERB2110
	1/4	0 to 20 bar		P6G-ERB2200	P6G-ERB2200
	1/4	0 to 20 bar			

Moduflex Proportional Technology

Man-machine interface

High visibility LED display
Easy to read characters
All controls on the same face

Total flexibility

User friendly and easily programmable software.
One basic unit suits all customer requirements.

Compact & light weight

Small envelope
Light weight (P3PH = 285g)

Outstanding performance

Very fast response times
Full flow exhaust
Excellent linearity

Flexible mounting options

Stand-alone
Foot bracket mounting
DIN-rail mounting



The new MPT40 Regulator is designed to quickly and accurately adjust and maintain a set output pressure.

The unit will operate regardless of flow, in response to an electronic control signal. The medium can be compressed air or an inert gas.

Applications for this technology are virtually unlimited; from paint spray control, paper manufacture and printing to weaving and laser cutting control; in fact anywhere that requires accurate remote pressure control.

- Very fast response times
- Accurate output pressure
- Micro parameter settings
- Selectable I/O parameters
- Quick, full flow exhaust.
- LED display indicates output pressure
- Auto enable function
- No air consumption in steady state



Standard Features

Micro Processor Parameter settings
Auto-Enable function
Selectable I/O parameters
M12 Electrical Connection

Operating information

Inlet pressure range	MPT40: max. 10 bar EPD: max. 16 bar
Outlet pressure range	0 to 2 bar, 0 to 7 bar, 0 to 10 bar or 0 to 12 bar
Temperature range	0°C to max. 50°C
Supply voltage	24 VDC
Control signal	0 - 10 V or 4-20 mA
Electrical connection	IP65
Hysteresis	1.1% FS
Flow G 1/4 (MPT40)	1500 l/min.
G 1/2 (EPD)	1800 l/min.
For technical information see CD	

Order Key

P	3	H	P	A	1	2	A	S	2	V	D	1	A
Port type		Port or tube size		Pressure range		Power supply		Control signal		Output Signal			
1	G Thread (BSP) Female		1	1/8	Z	0 - 2 bar	2	24 volts	A	4-20mA	D	Digital, PNP	1)
9	NPT Female		2	1/4	S	0 - 7 bar			V	0-10 V	P	PNP or 0-10V	2)
					D	0 - 10 bar					N	NPN or 0-10V	3)
											M	4-20mA fixed	4)

- 1) Digital PNP output only, no analogue output selectable
2) Digital PNP and analogue 0-10V outputs selectable, by means of parameter 6. (Factory default 0-10V)
3) Digital NPN and analogue 0-10 V outputs selectable by means of parameter 6. (Factory default 0-10V)
4) Analogue 4-20mA output only.

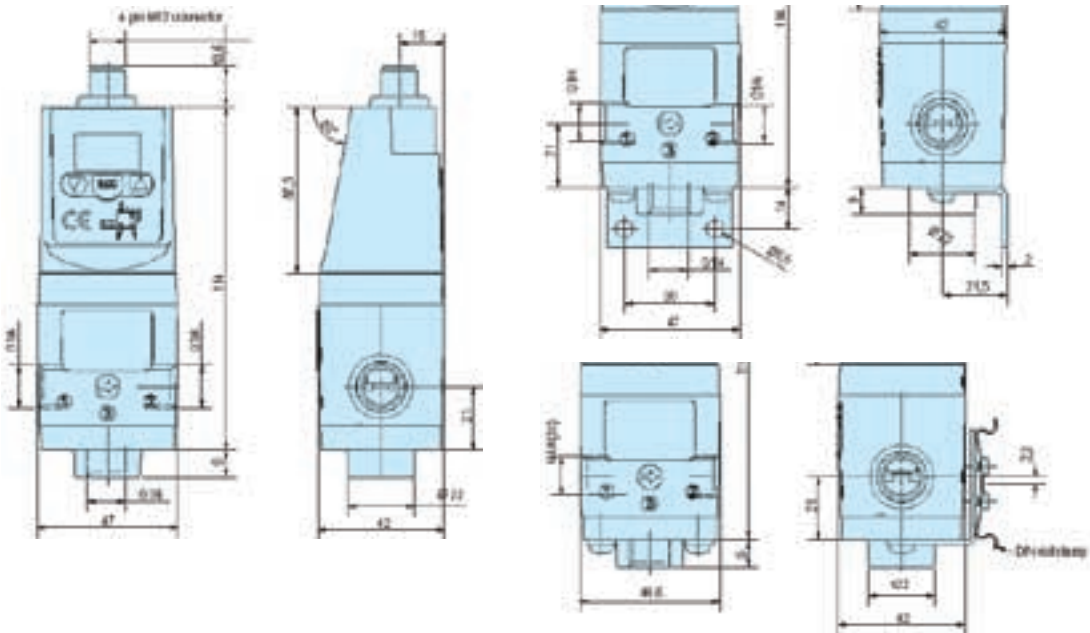
Note: On all analogue outputs the F.S. value can be adjusted by means of parameter 8

Connection	Pressure control Range (bar)	Control Signal	Description	Order code
G1/4	0-2	4 - 20mA	MPT40	P3HPA12AZ2AD1A
G1/4	0-7	4 - 20mA	MPT40	P3HPA12AS2AD1A
G1/4	0-10	4 - 20mA	MPT40	P3HPA12AD2AD1A
G1/4	0-2	0-10 V	MPT40	P3HPA12AZ2VD1A
G1/4	0-7	0-10 V	MPT40	P3HPA12AS2VD1A
G1/4	0-10	0-10 V	MPT40	P3HPA12AD2VD1A
G1/2	0-12	0-10 V	EPDN4-MP-0-12B-0U10	3505500
G1/2	0-7	0-10 V	EPDN4-MP-0-7B-0U10	3505700

 Indicates stocked product.

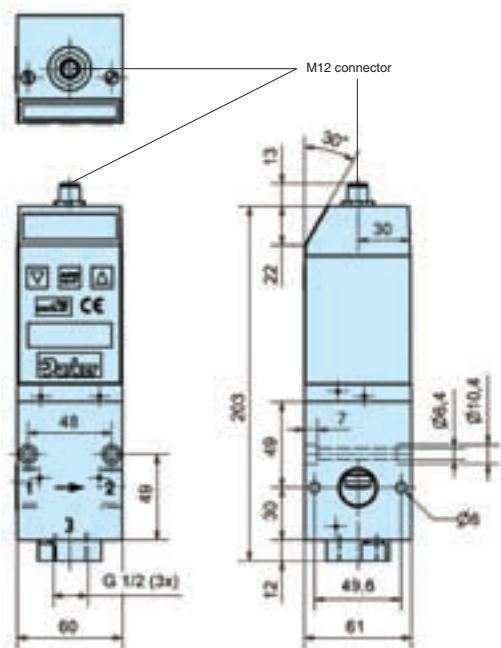
Dimensions (mm)

MPT40 - Bottom exhaust version



Dimensions (mm)

EPDN Series



Mounting options for P3HP

Decription	Order code
 Din rail mounting kit	P3HKA00MK
Decription	Order code
 Foot bracket mounting kit	P3HKA00MF

Cables

Decription	Order code
2m cable with moulded straight M12 x 1 connector	P8L-MC04A2A-M12
2m cable with moulded 90° M12 x 1 connector	P8L-MC04R2A-M12

Prep-Air II® Miniature FRLs

- Compact body ported units
- Port sizes G1/8 and G1/4
- Unique deflector plate ensuring maximum water and particulate removal
- Solid control piston with lip seal for extended life.
- Proportional oil delivery over a wide range of air flows.



Operating information		Flow characteristics	
Working pressure:	Max 10 bar	Flow	Filter 11 l/s
Working temperature:	0 °C to +52 °C		Regulator 9,3 l/s
			Filter Regulator 9,3 l/s
			Lubricator 10 l/s
For technical information see CD			

Filters - 5 micron element, transparent bowl

Port size	Description	Order Code
G1/8	Manual drain	14F01BB1
G1/8	Auto drain	14F05BB1
G1/4	Manual drain	14F11BB1
G1/4	Auto drain	14F15BB1
	Mounting bracket	PS417BP

Regulators - relieving type - non relieving options available

Port size	Description	Order Code
G1/8	2 bar	14R010FC1
G1/8	4 bar	14R011FC1
G1/8	8 bar	14R013FC1
G1/4	2 bar	14R110FC1
G1/4	4 bar	14R111FC1
G1/4	8 bar	14R113FC1
	Mounting bracket (Includes panel mounting nut)	PS417BP

Lubricators - transparent bowl

Port size	Order Code
G1/8	04L00GB1
G1/4	04L10GB1
Mounting bracket	PS419

Pressure Gauges

	Order Code
0 - 2 bar	P3D-KAB1AYN
0 - 4 bar	P3D-KAB1ALN
0 - 8 bar	P3D-KAB1ANN

Coalescing Filters - 0.01 micron element

Port size	Description	Order Code
Poly bowl		
G1/8	Manual drain	10F01ED1
G1/8	Auto drain	10F05ED1
G1/4	Manual drain	10F11ED1
G1/4	Auto drain	10F15ED1
	Mounting bracket	PS417BP

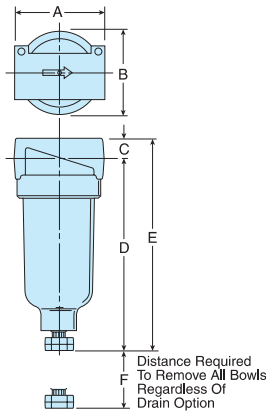
Filter/Regulators

- transparent bowl - 2 and 4 bar and non relieving options available

Port size	Description	Order Code
G1/8	2 bar, manual drain	14E01B10FC1
G1/8	2 bar, auto drain	14E05B10FC1
G1/4	2 bar, manual drain	14E11B10FC1
G1/4	2 bar, auto drain	14E15B10FC1
G1/8	4 bar, manual drain	14E01B11FC1
G1/8	4 bar, auto drain	14E05B11FC1
G1/4	4 bar, manual drain	14E11B11FC1
G1/4	4 bar, auto drain	14E15B11FC1
G1/8	8 bar, manual drain	14E01B13FC1
G1/8	8 bar, auto drain	14E05B13FC1
G1/4	8 bar, manual drain	14E11B13FC1
G1/4	8 bar, auto drain	14E15B13FC1
	Mounting bracket (Includes panel mounting nut)	PS417BP

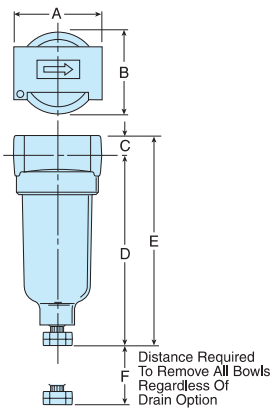
Dimensions (mm)

Filters



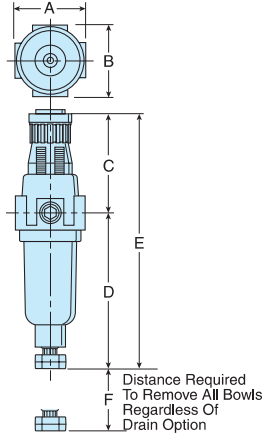
A	B	C	D	D'	E	E'	F
43	39	10	97	99	107	108	41

Coalescing Filters



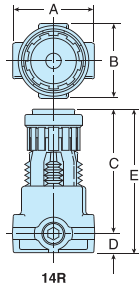
A	B	C	D	D'	E	E'	F
43	39,6	10	97	93	107	103	41

Filter/Regulators



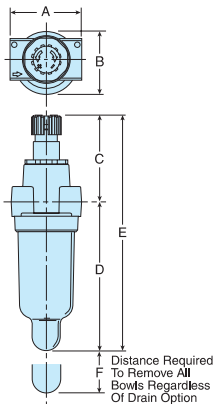
A	B	C	D	D'	E	E'	F
41	40	61	96	92	158	154	41

Regulators



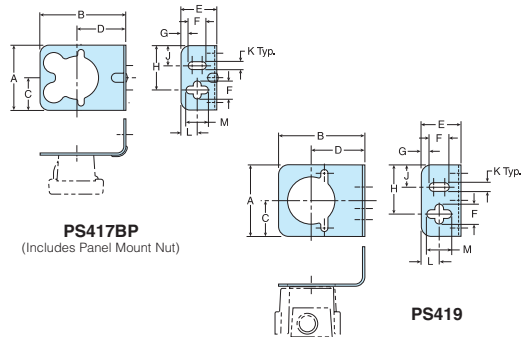
14R	A	B	C	D	E					
	42	40	63.5	10	731					
14R**L*	A	B	C	D	E					
	42	40	57.9	10	68					
14RM	A	B	C	D	E	F	G	H	J	
	38	38	60	13	73	30	15	8	18	

Lubricators



A	B	C	D	D'	E	E'	F
44	40	55	92	96	147	151	41

Mounting Bracket Kits



PS417BP - 10F, 14F, 14R, 14E

A	B	C	D	E	F	G	H	J	K	L	M
46	60	23	34	25	13	5	31	14	6	11	16

PS419 - 04L

A	B	C	D	E	F	G	H	J	K	L	M
46	55	23	34	25	13	5	31	14	6	11	16

Service kits

Description	Order Code
5 micron particulate element	PS403P
0.01 micron coalescing element	PS446P
Poly bowl with manual drain	PS404P
Poly bowl with pulse drain	PS408BP
Lubricator bowl	PS421P

Regulator

Relieving type	PS422P
Non-relieving type	PS428P

The all metal P3N Series FRLs are ideal for most medium sized ring main installations. The fully modular system allows units to be connected together, without the use of pipe connectors, saving space; providing constant mounting centres; whilst maintaining a modern aesthetically pleasing appearance.

- Self relieving feature plus balanced poppet provides quick response and accurate pressure regulation.
- Port blocks available to provide G³/₄ and G1¹/₂ port extension to G1 ported bodies.
- Proportional oil delivery over a wide range of air flows.



Operating information

Working pressure: Max 17 bar
Working temperature: -20 °C to +80 °C

Flow characteristics

Flow	Filter	166,6 l/s
	Regulator	166,6 l/s
	Filter/Regulator	166,6 l/s
	Lubricator	166,6 l/s

For technical information see CD

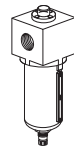
Filters - 40 micron element, metal bowl



Port size	Description	Order Code
G3/4	Manual drain	P3NFA16GSM
G3/4	Auto drain	P3NFA16GSA
G1	Manual drain	P3NFA18GSM
G1	Auto drain	P3NFA18GSA

5 micron element options available on request

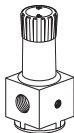
Coalescing Filters - 0.01 micron element, metal bowl



Port size	Description	Order Code
G3/4	Manual drain	P3NFA16DSM
G3/4	Auto drain	P3NFA16DSA
G1	Manual drain	P3NFA18DSM
G1	Auto drain	P3NFA18DSA

Adsorber filter option available on request

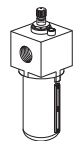
Regulators



Port size	Description	Order Code
G3/4	4 bar, relieving type	P3NRA16BNL
G3/4	8 bar, relieving type	P3NRA16BNN
G3/4	16 bar, relieving type	P3NRA16BNH
G1	4 bar, relieving type	P3NRA18BNL
G1	8 bar, relieving type	P3NRA18BNN
G1	16 bar, relieving type	P3NRA18BNH

None relieving options available on request

Lubricators - metal bowl



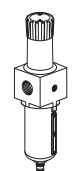
Port size	Description	Order Code
G3/4	No drain	P3NLA16LSN
G1	Manual drain	P3NLA18LSM
G1	No drain	P3NLA18LSN

Air Pilot Controlled Regulator



Port size	Description	Order Code
G1	8 bar, relieving type	P3NRA18BPP

Filter/Regulators - 40 micron, metal bowl, relieving type

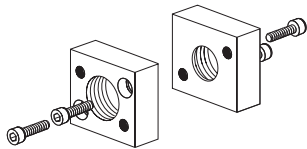


Port size	Description	Order Code
G3/4	8 bar, manual drain	P3NEA16GSMBNN
G3/4	8 bar, auto drain	P3NEA16GSABNN
G1	8 bar, manual drain	P3NEA18GSMBNN
G1	8 bar, auto drain	P3NEA18GSABNN

None relieving and other pressure options available on request

 Indicates stocked product.

Port Block Kits



Description	Connection	Order Code
Kits for single Units or Combinations without Lubricators (2 port blocks + 2 seals)	G3/4	P3NKB16CP
	G1	P3NKB18CP
	G1½	P3NKB1BCP
Kits for Combinations with Lubricators (2 port blocks + 2 seals)	G3/4	P3NKB16CL
	G1	P3NKB18CL
	G1½	P3NKB1BCL

Lockout valves - LV Series

- High flow 1" exhaust
- G1/4 to G1 inlet port sizes
- Detented spool
- Padlock, lockout facility
- High visibility yellow body



Symbol	Port size	Exhaust port (Port will except a BSPT or NPT male silencer)	Order code
	G1	1"	LV8BA8

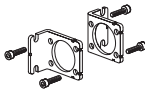
Double male adaptor



Thread BSPT	Order code	Pack Qty
1" x 1"	1FF33BL	5

Indicates stocked product.

Wall Mounting Bracket Kit



Description	Order code
3/4" and 1"	P3NKA00MW
1.1/2"	P3NKA0BMW

Gauges



Port size	Description	Order Code
G1/4	Gauge 0 to 4 bar	P6G-ERB2040
G1/4	Gauge 0 to 11 bar	P6G-ERB2110
G1/4	Gauge 0 to 14 bar	P6G-ERB2140
G1/4	Gauge 0 to 20 bar	P6G-ERB2200

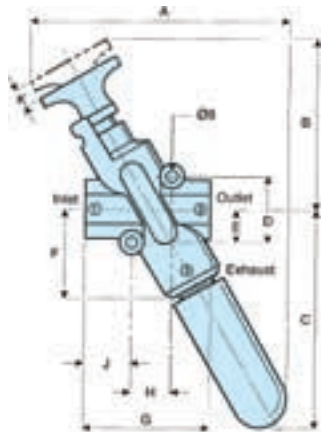
Service kits

Description	Order Code
5 micron particulate element	P3NKA00ESE
40 micron particulate element	P3NKA00ESG
0.3 micron coalescing element	P3NKA00ESC
Adsorber element	P3NKA00ESA

Regulator

Relieving type	P3NKA00RR
Non-relieving type	P3NKA00RN
Relieving (Air pilot)	P3NKA00PD

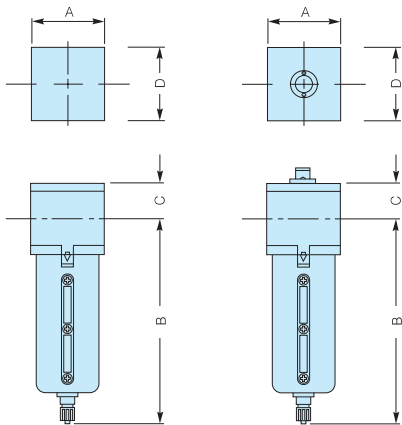
Dimensions (mm)



	A	B	C	D	E	F	G	H	J	K
mm	212	143	169	56	28	75	105	34	39	18

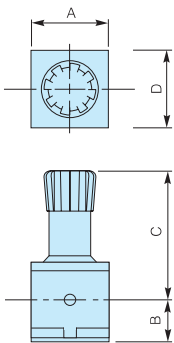
Dimensions (mm)

Filters and Coalescing Filters



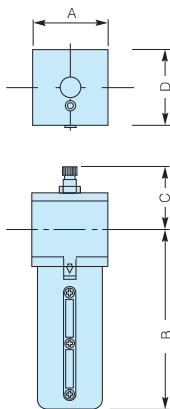
Port sizes	A	B	C	D
3/4" & 1"	92	254	35	92

Regulators



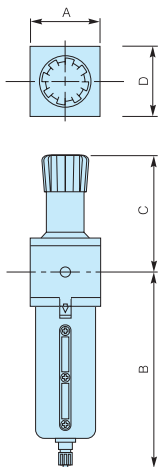
Port sizes	A	B	C	D
3/4" & 1"	92	53	162	92

Lubricators



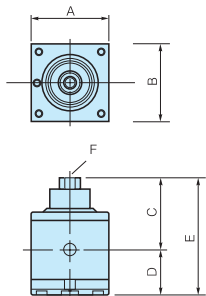
Port sizes	A	B	C	D
3/4" & 1"	92	230	71.3	92

Filter/Regulators



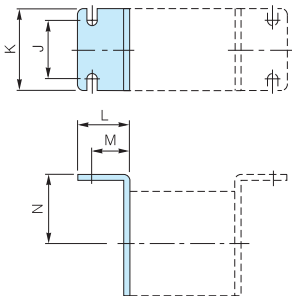
Port sizes	A	B	C	D
3/4" & 1"	92	243	162	92

Air pilot regulators



A	A (PB)	B	C	D	E	F
92	142	92	86	53	139	G ¹ / ₄

Wall mounting brackets



L	M	N	J	K
45	33	60	50	70

Standard Series FRLs

Standard Series FRLs are ideal for large ring main installations. The rugged all metal body ported design provides high flow with minimum pressure drop.

- Individual body ported and mounted units
- High flow with minimum pressure drop
- Lubricator fillable under pressure

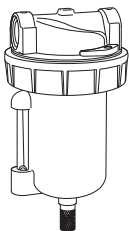


Operating information

Max operating pressure	17 bar (Filter + Lubricator) 12 bar when fitted with auto-drain
Max inlet pressure for regulators	20 bar
Max temperature	50°C
For technical information see CD	

Standard Particulate Filters

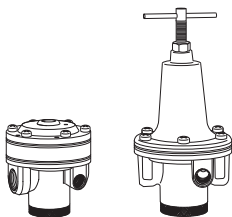
- Fitted with 40μ element as standard



Port size	Description	* Flow @ 7 bar l/min	Order code Zinc bowl with sight glass
1.1/4	Manual drain	11000	F06G10WJ
1.1/2	Manual drain	12500	F602G12WJ
2	Manual drain	31800	F602G16WJ
2.1/2	Manual drain	31800	F602G20WJ

* Flow with pressure drop 0.34 bar

Regulators



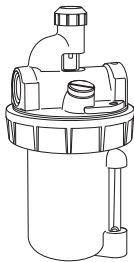
Port size	Flow @ 7 bar l/min	Order code	
		Manual Adjust	Remote operated
1.1/4	12000	R119G10C	
1.1/2	12000	R119G12C	R119G12J
2	42480		R119G16J
2.1/2	42480		R119G20J

 Indicates stocked product.

Standard Series FRLs

Lubricators

- High performance over wide flow range
- Lubricator may be filled while under pressure



Port size	* Flow @ 7 bar l/min	Order code
		Zinc bowl with sight glass
1.1/4	9200	L606G10W
1.1/2	11300	L606G12W

* Flow with pressure drop 0.34 bar

Standard Series Accessories

Regulator Mounting Bracket



Size	Order code
G1.1/4 & G1.1/2	18B57

Service kits

Port size	Description	Order Code
Filters		
G1.1/4 & G1.1/2	40 micron particulate element	EK602B
G2 & G2.1/2	40 micron particulate element	EK602G

Gauges

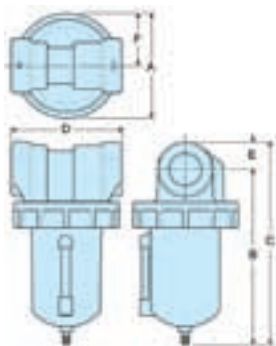


Size	Pressure range	Order code
1/4 x 50mm	0 - 4 bar	P6G-ERB2040
1/4 x 50mm	0 - 11 bar	P6G-ERB2110
1/4 x 50mm	0 - 14 bar	P6G-ERB2140
1/4 x 50mm	0 - 20 bar	P6G-ERB2200

 Indicates stocked product.

Dimensions (mm)

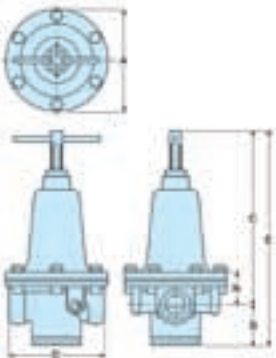
Filters - 1.1/4" & 1.1/2"



F602-10W, F602-12W

A	B	C	D	E	F
124	208	240	132	32,4	62,2

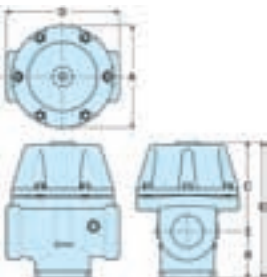
Regulators - 1.1/4" & 1.1/2"



R119-10C, R119-12C

A	B	C	D	E	F
125	46	217	125	263	50,6

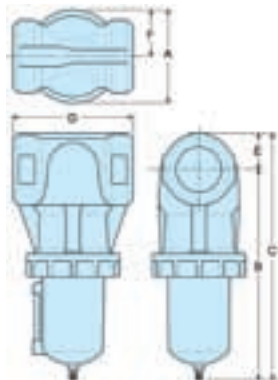
Pilot Operated Regulators - 1.1/2"



R119-12J

A	B	C	D	E	F
124	290	322	132	32,4	62,2

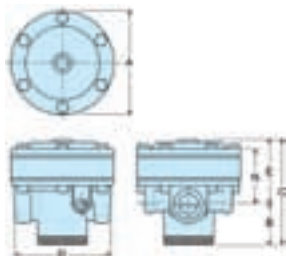
Filters - 2" & 2.1/2"



F602-16W, F602-20W

A	B	C	D	E	F
160	281	124	160	48,7	62,2

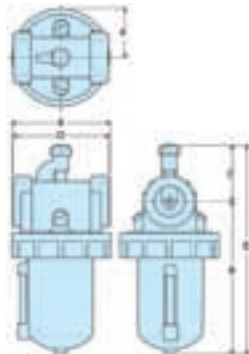
Pilot Operated Regulators - 2" & 2.1/2"



R119-16J, R119-20J

A	B	C	D	E
168	79	147	185	276

Lubricators - 1.1/4" & 1.1/2"



L606-10W, L606-12W

A	B	C	D	E	F
126	194	72,2	122	266	63,1

Stainless Steel FRLs

The range of Stainless Steel FRLs are ideal for use in the food industry, the petrochemical or process industries or any application in a particularly harsh or aggressive environment.

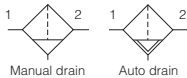
- Suitable for Marine & Offshore applications
- Chemical / Petroleum and process industries
- Coalescing filters are designed for removing oil and water aerosols down to 0.01µ
- Suitable for food industry applications



Operating information

Max operating pressure	20 bar
	12 bar when fitted with auto-drain
Max operating temperature	Regulator 65°C
	Filter + Regulator 80°C,
	50°C when fitted with auto-drain
For technical information see CD	

Particulate Filter



	Port size	Flow l/min @ 7 bar	Filter element	Order code with manual drain	Order code with auto drain
	G1/4	660	20µ	PF504G02DHSS	
	G1/2	1800	40µ	PF10G04DJSS	PF10G04DJRSS

* For 5µ filter element substitute **H** or **J** with **G**

Coalescing Filter

	Port size	Flow l/min @ 7 bar	Filter element	Order code with manual drain	Order code with auto drain
	G1/4	240	0.3µ	PF501G02DHSS	
	G1/2	480	0.01µ	PF11G04DJSS	PF11G04DJRSS

Regulator



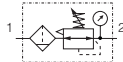
	Port size	Flow l/min @ 7 bar	Order code fitted with 0-8.5 bar spring
	G1/4	450	PR364G02CSS
	G1/2	2820	PR10G04CSS

Lubricator



	Port size	Flow l/min @ 7 bar	Order code
	G1/2	3000	PL10G04DSS

Filter/Regulator



	Port size	Flow l/min @ 7 bar	Order code fitted with 0-8.5 bar spring
	G1/4	450	PB548G02DHCSS
	G1/2	1800	PB11G04DJCSS

Panel mounting nut for G1/4: **PR05X51SS**
G1/2: **PR10X51SS**

 Indicates stocked product.

Connectors

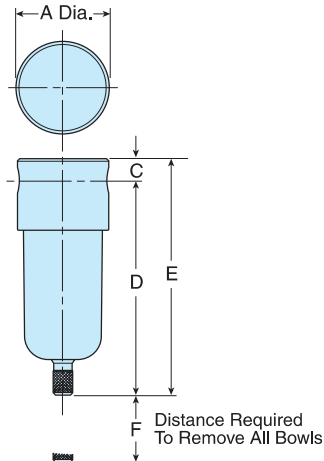
	Port size	Order code
	G1/4	AC-2SS
	G1/2	AC-4SS

Stainless steel pressure gauge M1/4G40S-10
(0 to 10 bar)

Dimensions (mm) - 1/4"

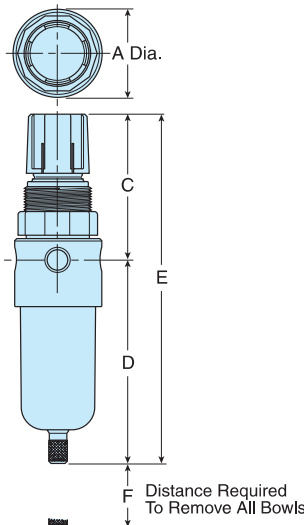
Filters

Coalescing Filters



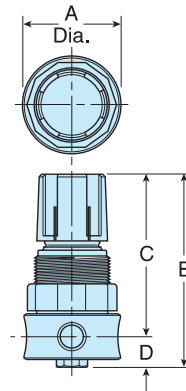
A	C	D	E	F
40mm	8mm	94mm	102mm	40mm

Filter/Regulators



A	C	D	E	F
40mm	67mm	92mm	159mm	40mm

Regulators



A	C	D	E
40mm	65mm	13mm	78mm

Service kits

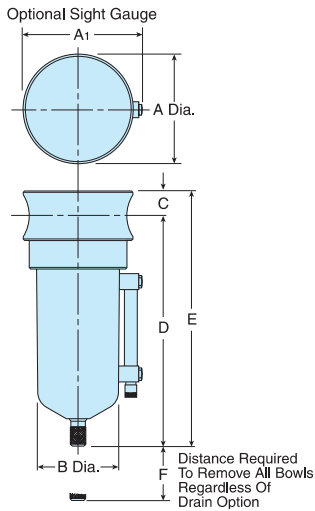
Port size	Description	Order Code
Filter		
1/4	20 micron particulate element	EK504Y
1/4	5 micron particulate element	EK504VY
1/2	40 micron particulate element	EK55J
1/2	5 micron particulate element	EK55G
Coalescing Filter		
1/4	0.3 micron coalescing element	EKF501H
1/2	0.01 micron coalescing element	EKF71
Regulator		
1/4	Relieving type	RKR364YSS
1/4	Non-relieving type	RKR36KYSS
1/2	Relieving type	RKR10YSS
1/2	Non-relieving type	RKR10KYSS
Filter/Regulator		
1/4	20 micron particulate element	EK504Y
1/4	5 micron particulate element	EK504VY
1/2	40 micron particulate element	EKF10Y
1/2	5 micron particulate element	EKF10VY
Lubricator		
	Sight dome kit	RKL10SS

Stainless Steel FRLs

Dimensions (mm) - 1/2"

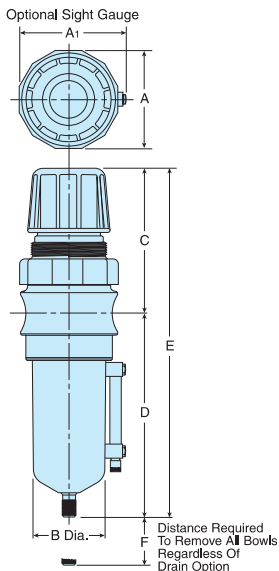
Filters

Coalescing Filters



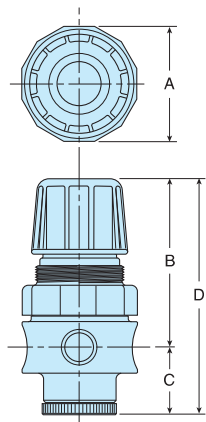
A	A ₁	B	C	D	E	F
60mm	64mm	44mm	14mm	127mm	141mm	54mm

Filter/Regulators



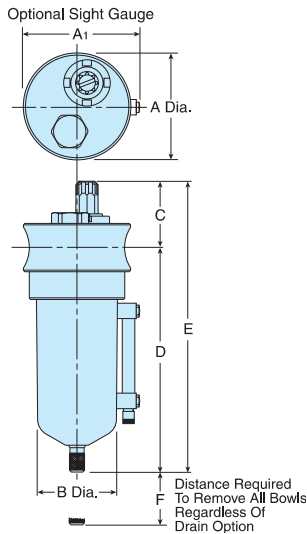
A	A ₁	B	C	D	E	F
60mm	64mm	44mm	91mm	127mm	218mm	54mm

Regulators



A	C	D	E
60mm	91mm	35mm	126mm

Lubricators



A	A ₁	B	C	D	E	F
60mm	64mm	44mm	46mm	127mm	173mm	89mm

Precision Pressure Regulators

Highly accurate units, suitable for applications such as instrumentation where precision regulation is required.

- High repeatability
- High relief capacity on R220 model
- High flow capacity on R230 model



Operating information

Max operating pressure	10 bar
Max operating temperature	66°C
Repeatability:	R210 model 0.3 mbar
	R220 model 0.3 mbar
	R230 model 0.6 mbar
For technical information see CD	

	Port size	Reduced Pressure range	Flow l/min	Relief capacity l/min	Order code
	G1/4	0.13 - 2.7	396	57	R210G02A
	G1/4	0.13 - 8.1	396	57	R210G02C
	G1/4	0.13 - 8.1	396	282	R220G02C
	G1/4	0 - 2	2280	114	R230G02B
	G1/4	0.13 - 4	2280	114	R230G02C
	G1/4	0.13 - 10	2280	114	R230G02D

Mounting brackets

Series	Order code
R210 / R220	446-707-045
R230	446-707-025

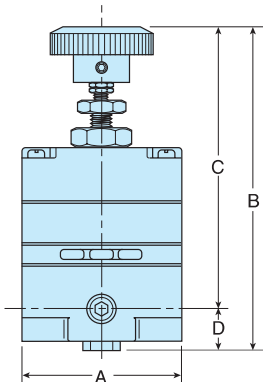


Indicates stocked product.

Precision Pressure Regulators

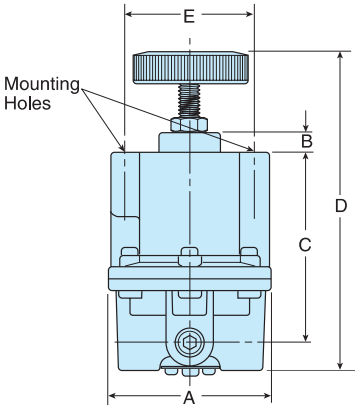
Dimensions (mm)

R210 / 220 High Precision Regulator



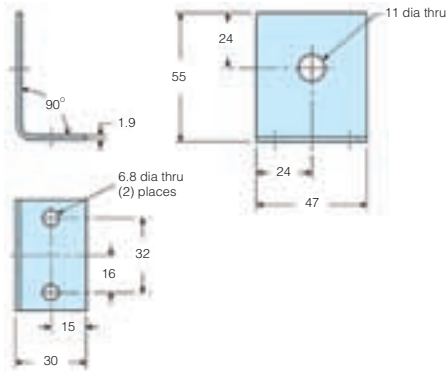
A	C	D	E
52mm	110mm	97mm	13.5mm

R230 High Flow Precision Regulator

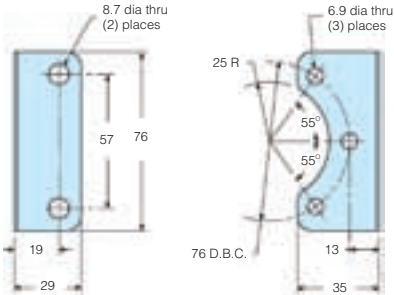


A	B	C	D	E
76mm	10mm	86mm	154mm	57mm

Mounting bracket - 446-707-045



Mounting bracket - 446-707-025



A range of speed controls, flow controls and back pressure sensors designed to be mounted directly onto the cylinder in the optimum position for maximum performance.

- "Push-in" or threaded connection
- Multifunction options
- Fit directly to cylinder ports
- Swivelling pilot banjo
- Pneumatic, Electric or Electronic back pressure sensor



Operating information

Working pressure;

PWR-L, PWR-H, PWR-A,	
PWR-B	1-10 bar
PWB-A, PWS-M,	
PWS-E, PWS-P	0-10 bar
PWA-L	0,2-10 bar

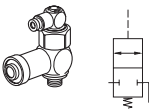
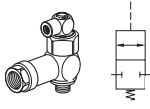
Working temperature	: -15°C to +60°C
PWR-L	-15°C to +70°C

Pilot pressure at 6 bar supply;

PWB-A and PWR-HB	(1/8", 1/4" versions)	: 4 bar
	(1/2" and 3/8" versions)	: 2,9 bar
PWS-P111		: 4,4 bar
PWS-M1012		: 1,5 bar
PWS-E101 and E111		: 0,7 bar

For technical information see CD

2/2 Blockers

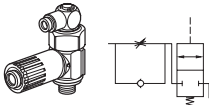
Symbol	Connection for pilot port	Thread for cylinder connection	Connection for tube Ø, mm	Tightening torque Nm	Qmax input at 6 bar, l/min*	Order code
With push-in connection						
	Push-in *, Ø4 mm	G1/8	6	8	500	PWB-A1468
		G1/4	6	12	600	PWB-A1469
			8	12	650	PWB-A1489
		G3/8	8	30	1600	PWB-A1483
			10	30	1750	PWB-A1493
		G1/2	12	35	2050	PWB-A1412
With threaded connection						
	Push-in *, Ø4 mm	G1/8	G1/4	8	500	PWB-A1898
		G1/4	G1/4	12	650	PWB-A1899
		G3/8	G3/8	30	1750	PWB-A1833
		G1/2	G1/2	35	2050	PWB-A1822

* M5 without banjo

 Indicates stocked product.

Cylinder controls

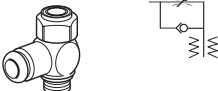
Multifunction flow control + blockers

Symbol	Connection for pilot port	Thread for cylinder connection	Connection for tube Ø, mm	Tightening torque Nm	Qmax input at 6 bar, l/min*	Order code
With push-in connection						
	Push-in, Ø4 mm	G1/8	4	8	330	PWR-HB1448
			6	8	500	PWR-HB1468
		G1/4	6	12	500	PWR-HB1469
			8	12	600	PWR-HB1489
		G3/8	8	30	1200	PWR-HB1483
			10	30	1300	PWR-HB1493
		G1/2	10	35	1400	PWR-HB1492

* Screw closed

Compact flow regulator with push-in connection

For direct port cylinder mounting

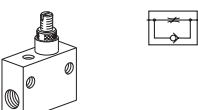
Symbol	Thread for cylinder connection	Push-in connection Ø, mm	Order code
With push-in connection and locknut (not M5)			
	M5	4	PTF8PB4M5
	G1/8	4	PTF4PB4-1/8
		6	PTF4PB6-1/8
	G1/4	6	PTF4PB6-1/4
	G3/8	8	PTF4PB8-3/8
		10	PTF4PB10-3/8
	G1/2	12	PTF4PB12-1/2

Flow regulator with adjustable exhaust restriction

For direct port cylinder mounting

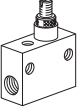
Symbol	Thread for cylinder connection	Push-in connection Ø, mm	Order code
With push-in connection Allen key adjustment and locknut			
	M5	4	PTFL8PB4M5
	G1/8	4	PTFL4PB4-1/8
		6	PTFL4PB6-1/8
	G1/4	8	PTFL4PB8-1/8
		6	PTFL4PB6-1/4
		8	PTFL4PB8-1/4
		10	PTFL4PB10-1/4
	G3/8	8	PTFL4PB8-3/8
		10	PTFL4PB10-3/8
	G1/2	12	PTFL4PB12-1/2

Flow control valves with by-pass

Symbol	Thread	Number of turns	Qmax input at 6 bar, l/min	Order code
	G1/8	13	240	VQB12-Q-O-5
	G1/4	13	1320	VQB22-Q-O-5
	G1/2	13	3600	VQB42-Q-O-5

 Indicates stocked product.

Flow control valves with by-directional control

Symbol	Thread	Number of turns	Qmax input at 6 bar, l/min	Order code
	G1/8	13	72	VQB12-OX-5*
	G1/8	13	240	VQB12-O-5
	G1/4	13	1320	VQB22-O-5
	G1/2	13	3600	VQB42-O-5

* Extra fine adjustment

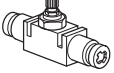
Knob and nut for panel mounting

To suit	Order code
VQB12	9128177212
VQB22	9128177222
VQB42	9128177242

Inline speed controls, PWR-L series

For inline mounting

With push-in connection,
knob adjustment and locknut

	4	PWR-L1444
	6	PWR-L1466
	8	PWR-L1488
	10	PWR-L1499
	12	PWR-L1411

Plug-in sensors

For use with banjo sockets

Sensing function	Output function	Output connection	Output characteristics	Order code
Exhaust back pressure decay	Pneumatic	Push-in Ø 4 mm	NO valve flow rate at 6 bar 1,5 l/s	PWS-P111
	Electrical ~ Ie = 3 A	3 wires 0,5 mm ² length 2 m	CO contact 12 to 230 V ~ / 10 VA* 12 to 48 VDC / 5 W*	PWS-M1012
	Solid state	3 wires 0,1 mm ² length 2m	PNP type 10/30 VDC** 75 mA	NC PWS-E101
				NO PWS-E111

* Suitable for low currents : 250 V ~ / 4 mA ; 24 VDC / 10 mA ** Including ripple

Banjo sockets for plug-in sensors

With sensor locking clip, for direct port cylinder mounting

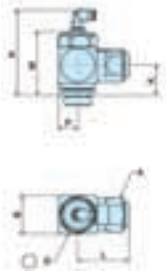
Thread size for cylinder port	Female thread	Tool required	Order code
M5	M5	8 mm flat spanner	PWS-B155
G1/8	G1/8	5 mm Allen key	PWS-B188
G1/4	G1/4	8 mm Allen key	PWS-B199
G3/8	G3/8	10 mm Allen key	PWS-B133
G1/2	G1/2	12 mm Allen key	PWS-B122

 Indicates stocked product.

Cylinder controls

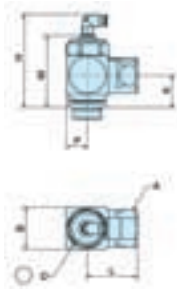
Dimensions (mm)

Blocker with push-in connection



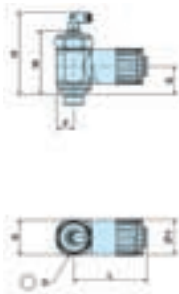
Order code	A	B	D	H	K	L	P	M
PWB-A1468	Ø 22	21	21	59,0	16,5	39	11	43
PWB-A1469	Ø 22	21	21	59,0	16,5	39	11	43
PWB-A1489	Ø 22	21	21	59,0	16,5	39	11	43
PWB-A1483	□ 27	30	27	66,5	22,5	39	15	52
PWB-A1493	□ 27	30	27	66,5	22,5	39	15	52
PWB-A1412	□ 27	30	27	66,5	22,5	39	15	52

Blocker with threaded connection



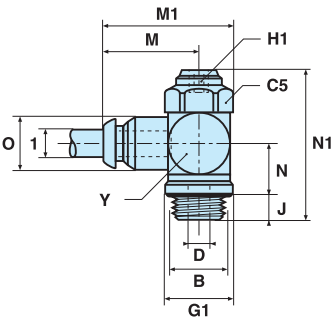
Order code	A	B	D	H	K	L	C	P	M
PWB-A1898	Ø 22	21	21	59,0	16,5	43,5	Ø24	11	43
PWB-A1899	Ø 22	21	21	59,0	16,5	43,5	Ø24	11	43
PWB-A1833	□ 27	30	27	66,5	22,5	36,0	□27	15	52
PWB-A1822	□ 27	30	27	66,5	22,5	36,0	□27	15	52

Blocker/Flow regulator



Order code	ØA	B	D	H	K	L	P
PWR-HB1448	22,5	21	21	59	16,5	47,0	12,5
PWR-HB1468	22,5	21	21	59	16,5	47,0	12,5
PWR-HB1469	22,5	21	21	59	16,5	47,0	12,5
PWR-HB1489	22,5	21	21	59	16,5	47,0	12,5
PWR-HB1483	29,0	30	27	64,5	22,5	60,0	15,0
PWR-HB1493	29,0	30	27	64,5	22,5	60,0	15,0
PWR-HB1492	29,0	30	27	64,5	22,5	60,0	15,0

PTF4/8PB - Flow regulator with push-in connection

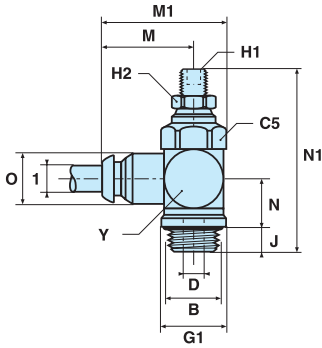


Order code	C5	D	G1	H1	J	M	M1	N	N1	O	Y
PTF8PB4M5**	8	1,65	10,0	1,5	4	19,5	24,5	6,3	22,0	10	10
PTF4PB4-1/8	14	3,00	14,4	2,0	6	22,0	30,1	10,7	34,5	10	14
PTF4PB6-1/8	14	3,20	14,4	2,0	6	23,5	31,6	10,7	34,5	12	14
PTF4PB6-1/4	17	5,20	18,4	4,0	7	25,0	34,9	13,8	41,0	12	17
PTF4PB8-1/8	14	3,20	14,4	2,0	6	25,0	33,1	10,7	34,5	14	14
PTF4PB10-3/8	22	6,00	21,6	4,0	7	34,0	46,7	17,3	51,0	17	22
PTF4PB12-1/2	27	8,50	26,5	4,0	9	36,5	52,1	20,1	61,0	20	27

Exhaust flow control

Dimensions (mm)

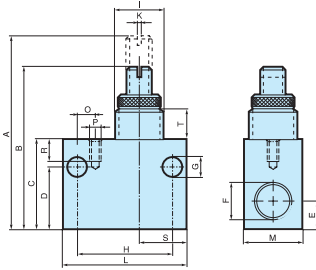
PTFL4/8PB - Flow regulator with push-in connection



Exhaust flow control

Order code	C5	D	G1	H1	H2	J	M	M1	N	N1	O	Y
PTFL8PB4M5**	8	1,65	10,0	1,5	8	4	19,5	24,5	6,3	28,5	10	10
PTFL4PB4-1/8	14	3,00	14,4	2,0	7	6	22,0	30,1	10,7	43,7	10	14
PTFL4PB6-1/8	14	3,20	14,4	2,0	7	6	23,5	31,6	10,7	43,7	12	14
PTFL4PB6-1/4	17	5,20	18,4	4,0	11	7	25,0	34,9	13,8	51,8	12	17
PTFL4PB8-1/8	14	3,20	14,4	2,0	7	6	25,0	33,1	10,7	43,7	14	14
PTFL4PB8-1/4	17	5,20	18,4	4,0	11	7	28,5	38,3	13,8	51,8	14	17
PTFL4PB8-3/8	22	6,00	21,6	4,0	11	7	29,5	42,2	17,3	63,7	14	22
PTFL4PB10-3/8	22	6,00	21,6	4,0	11	7	34,0	46,7	17,3	63,7	17	22
PTFL4PB12-1/2	27	8,50	26,5	4,0	14	9	36,5	52,1	20,1	76,1	20	27

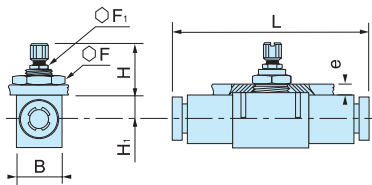
Flow Control Valves



Order code	A	B	C	D	E	F	G	H	I
VQB12-(Q)-OX-5	49	42	22	15	6,5	G1/8	5,8	24	M12x1
VQB12-(Q)-O-5	49	42	22	15	6,5	G1/8	5,8	24	M12x1
VQB22-(Q)-O-5	64	53	30	21	8,5	G1/4	7,0	32	M16x1
VQB42-(Q)-O-5	99	85	50	36	16,5	G1/2	7,0	50	M24x1,5

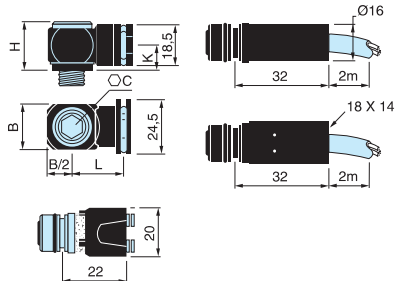
Order code	K	L	M	O	P	R	S	T
VQB12-(Q)-OX-5	1,2	32	15	-	-	-	13,5	8,8
VQB12-(Q)-O-5	1,2	32	15	-	-	-	13,5	8,8
VQB22-(Q)-O-5	1,2	42	20	6,0	M4	7	16,0	10,0
VQB42-(Q)-O-5	1,8	62	30	19,5	M4	7	20,5	15,2

Speed Controls, PWR-L Series



Order code	B	F	F1	e	H+	H-	H1	L	Q
PWR-L1444	12,0	14	*	6	25,5	21,5	6,5	39,0	10,5
PWR-L1466	17,0	19	*	7	32,5	27,5	7,5	54,0	17,0
PWR-L1488	18,5	24	11	7	34,5	28,5	9,0	60,5	19,0
PWR-L1499	24,0	30	14	7	38,5	29,5	11,5	76,0	25,0
PWR-L1411	28,0	32	14	8	42,0	32,0	12,5	86,0	28,0

Back Pressure Sensors - Modular



Order code	C	B	H	K	L
PWS-B155	8	11	16,5	10	17
PWS-B188	5	16	20,0	10	20
PWS-B199	8	21	20,0	10	22
PWS-B133	10	28	22,0	12	25
PWS-B122	12	33	26,0	14	26

Shuttle valve and Quick exhaust valves

Quick Exhaust Valves

- Increases piston speeds, super sensitive diaphragm.
- May be used as differential shuttle valve.

Shuttle Valves

- Allows two separate signals to be applied to the air pilot.
- 0,6 bar differential, Viton seals as standard.

Non Return Valves

- Aluminium or polymer bodies
- Compact



Operating information

Shuttle valve ***005

Working pressure	1,3 - 17 bar
Working temperature; Standard	-10 °C to +180 °C

Quick exhaust valve P4Q

Working pressure:	0,2 - 10 bar
Working temperature; Standard:	-10 °C to +80 °C

VB

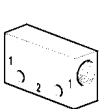
Working pressure	Max 10 bar
Working temperature	-20 °C to +70 °C

PWA-L

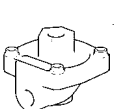
Working pressure	0,2 - 10 bar
Working temperature;	-15 °C to +60 °C

For technical information see CD

Shuttle Valves

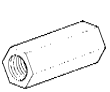
Symbol	Port size	Order code
	M5	M33005
	G1/8	B43005B
	G1/4	B53005A

Quick Exhaust Valves P4Q Series

Symbol	Port size	Order code
	Standard Version	
	G1/4	P4Q-BA12
	G3/8	P4Q-BA13
	G1/2	P4Q-CA14
	G3/4	P4Q-CA16
	High Temperature Version (Fluorocarbon diaphragm)	
	G3/8	P4Q-BV13
	G1/2	P4Q-CV14
	G3/4	P4Q-CV16

Non Return Valves

Aluminium VB Series

Symbol	Port size	Order code
	G1/8	VB12-Q-NQ-5
	G1/4	VB22-Q-NQ-5
	G1/2	VB42-Q-NQ-5

Line mounted non-return valves

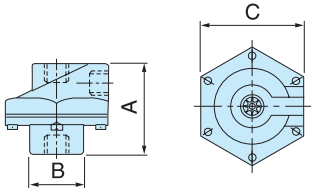
Symbol	Push-in connection Ø, mm	Flow rate 6 bar, l/s	Order code
	4	3,33	PWA-L1444
	6	11,00	PWA-L1466
	8	26,67	PWA-L1488

 Indicates stocked product.

Shuttle valve and Quick exhaust valves

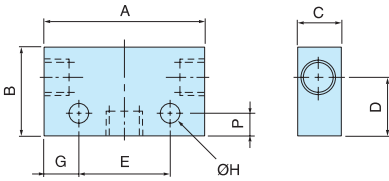
Dimensions (mm)

Quick Exhaust Valves



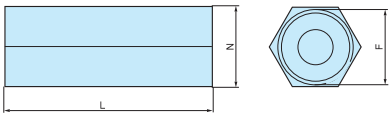
Order code	Port Size	A	B	C
P4Q-B*12	G1/4	52	25	62
P4Q-B*13	G3/8	52	25	62
P4Q-B*14	G1/2	73	38	86
P4Q-B*16	G3/4	73	38	86

Shuttle Valves



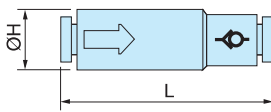
Order code	Port Size	A	B	C	D	E	F	G	H
M33005	M5	27,5	24	15	16,0	15	6	6,3	3,2
M43005B	G1/8	44,0	24	15	16,0	25	6	9,5	4,5
B53005A	G1/4	52,0	30	22	20,5	35	10	8,5	5,5

Non Return Valves - VB - Female



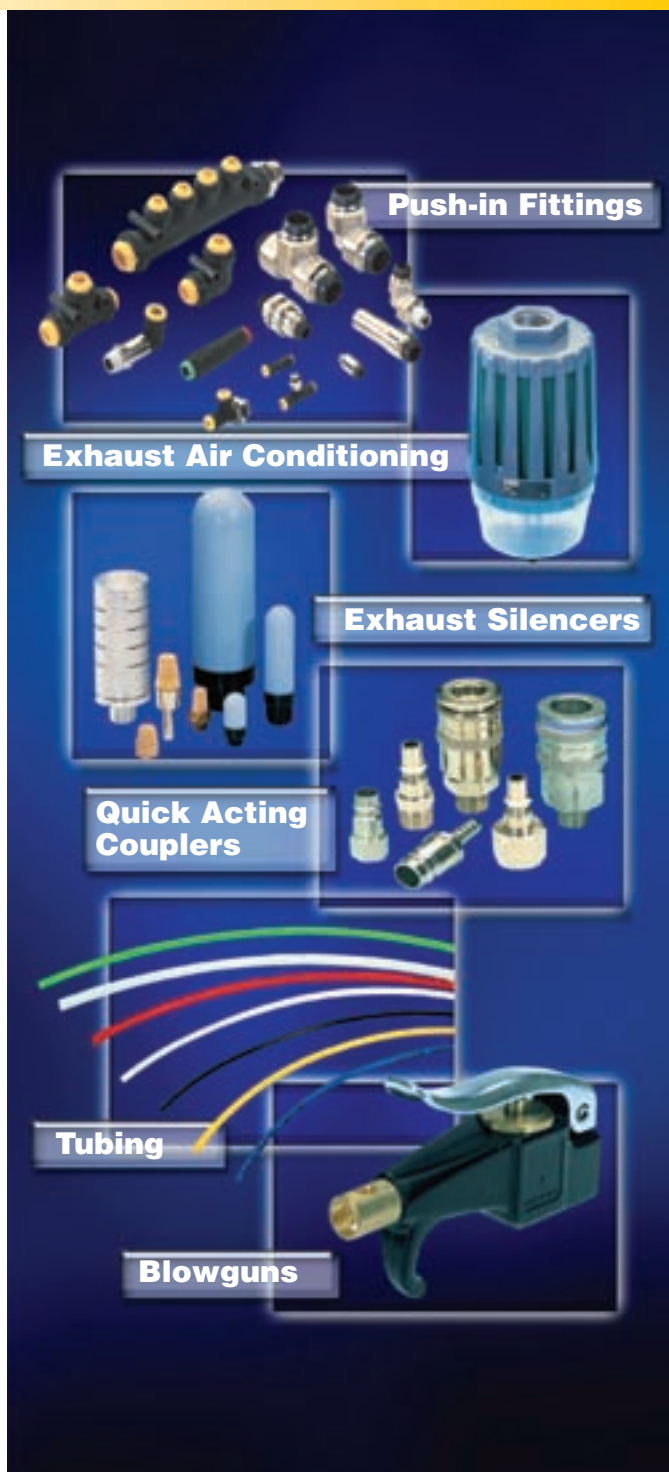
Order code	F	L	N
VB12-Q-NQ-5	G1/8	31	14
VQB22-Q-NQ-5	G1/4	40	17
VB42-Q-NQ-5	G1/2	59	27

Non Return Valves - Push-in



Order code	ØH	L
PWA-L1444	11,0	43,0
PWA-L1466	13,0	49,5
PWA-L1488	13,5	55,0

Fittings and Airline Accessories



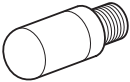
Exhaust Silencers

The efficient reduction in noise from exhausting compressed air is not only desirable but a legal requirement.

The range of silencers illustrated below covers plastic, sintered metal and 'can' versions suitable for almost all general applications from M5 to G1" sizes.

- All plastic ultra light weight versions
- Aluminium body versions
- Sintered metal
- Versions with push-in connections
- High noise level reduction
- Low back pressure generation

P6M plastic series

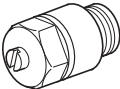
	Port	Order code	Pack Qty
	M5	P6M-PAC5	10
	G1/8	P6M-PAB1	10
	G1/4	P6M-PAB2	10
	G3/8	P6M-PAB3	10
	G1/2	P6M-PAB4	5
	G3/4	P6M-PAB6	1
	G1	P6M-PAB8	1

Restrictor Silencers

Sintered metal series

	Port	Order code
	R1/8	43006
	R1/4	T53006
	R3/8	T63006A
	G1/2	B73006

Sintered plastic version

	Port	Order code
	G1/8	9301050901
	G1/4	9301050902
	G3/8	9301050903
	G1/2	9301050904

 Indicates stocked product.



Operating information

Plastic	Working temperature:	-10°C to +80°C
	Efficiency	92%
Metal	Working temperature:	-10°C to +74°C
	Working pressure	up to 17 bar
For technical information see CD		

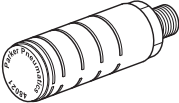
Sintered bronze series

	Port	Order code
	M5	9721900005
	G1/8	9090050700
	G1/4	P6M-BAA2
	G3/8	9090050900
	G1/2	9090051000
	G3/4	9090051100
	G1	9090051500

Instant push-in version

	Port	Order code
	Ø4mm	PXC-X14
	Ø6mm	PZC-S1006
	Ø8mm	PZC-S1008

Self cleaning Exhaust silencers, 48 series

	Port	Order code
	R1/8	48021000
	R1/4	48041000
	R3/8	48061000
	R1/2	48081000
	R3/4	48121000
	R1"	48161000

Heavy Duty Series

	Port	Order code
	G3/8	P6M-MA13
	G1/2	P6M-MA14
	G3/4	P6M-MA16
	G1	P6M-MA18

The safe disposal of compressed air exhaust promotes better working conditions and improves the environment.

The units illustrated provide excellent noise level reduction and oil aerosol removal for safer working

- Removes oil mist from exhaust air
- Efficiently silences exhaust air
- Easily replaceable element



Operating information

Reclassifier - Metal repairable version

Working temperature	0 °C to 66 °C max.
Working pressure	Max 7 bar
Efficiency	Better than 99%
Maximum flow rate	G1/2, G3/4 small unit 27,8 l/s G3/4, G1 large unit 50 l/s

For technical information see CD

Metal repairable version

Symbol	Port size	Type of reclassifier	Order code
	G1/2	Small	3514S
	G3/4	Small	3516S
	G3/4	Large	3516
	G1	Large	3518

Replacement element

For reclassifier	Type	Order code
3514S, 3516S	Small	3514S-2
3516, 3518	Large	3516-2

Manifold for metal repairable version

Number of ports	Order code
5	M3516-5
7	M3516-7
9	M3516-9
Wall mounting kit	3516W

The manifold is available for G3/4 sizes only.
For other sizes consult technical sales.

 Indicates stocked product.

Ball valves and sliding sleeve valves

Ball valves

- 3 distinct series
- Vented and non vented
- Bubble tight shut-off
- Positive 90 ° movement
- Wide variety of fluids

Sliding sleeve valves

- Linear sleeve operated 3/2 valve
- Simple airline isolation
- Compact
- Minimum space for valve operation



Ball Valves

Fluids in circulation	Temperature		Fluids in circulation	Temperature	
	Min °C	Max°C		Min°C	Max°C
Compressed air	-20	+100	Natural gas	-20	+40
Methylated spirits	-20	+40	Glycerine	-20	+40
Diluted anti-freeze	-20	+90	Glycol	-20	+40
Butane	-20	+60	Cutting oils	-20	+100
Carbonate of soda		+40	Oils and greases	-20	+90
Carbonated water		+40	Hydraulic oils	-20	+90
Sea water		+90	Saponified liquids		+30
Distilled water		+90	Fuel oil	-20	+40
Water+carb gas		+40	Methane	-20	+60
Tap water		+90	Paraffin		+60
Petroleum	-20	+40	Propane	-20	+60
CO ²	-20	+60	Stearine		+60
Town gas	-20	+40			

Operating information

Ball valves

	3/2 Standard	2/2 Light	2/2 Heavy Duty
Pressure	Vacuum to 40 bar	Vacuum to 11,7 bar	Vacuum to 40 bar
Temperature	-20 °C to +100 °C		
Fluids	Air only	Air, oil, gases	Air, oil, gases

Sliding sleeve valves

Working pressure	Max 40 bar
Working temperature	-20 °C to +100 °C

For technical information see CD

3/2 Standard series Ball valves

Symbol	Ø Flow passage mm	Ø Exhaust passage mm	Port size	Order code	Box Qty
	13	2	G1/4	BVG4P-1/4LOCK	12
	13	2	G3/8	BVG4P-3/8LOCK	12
	16	2	G1/2	BVG4P-1/2LOCK	8
	18	2,5	G3/4	BVG4P-3/4LOCK	12
	19	3	G1	BVG4P-1LOCK	8

2/2 Light series Ball valves

Symbol	Ø Flow passage mm	Port size	Order code	Box Qty
	4	G1/4	MBVG4-1/4	12
	7	G3/8	MBVG4-3/8	12
	10	G1/2	MBVG4-1/2	6

2/2 Heavy duty series Ball valves

Symbol	Ø Flow passage mm	Port size	Order code	Box Qty
	32	G1 1/2	BVG4-1 1/2L	6
	40	G2	BVG4-2L	4

Quick acting couplers (check units) allow air tools or other portable equipment to be connected at convenient points.

The Intercheck series feature industry interchangeable adaptor forms and the sleeve action allows one hand operation.



- Interchangeable with:-
Series 35 - CEJN 310 & Rectus 25
- Single hand operation
- High flow with minimum pressure drop

Operating information

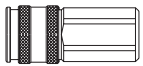
Working pressure 0 - 30 bar
Working temperature -10 °C to +80 °C

Flow: Qmax
Intercheck 35 3300 l/min
Mini 1080 l/min
Euro 1080 l/min
Schrader Standard Series 1416 l/min
Schrader Heavy Duty Series 3120 l/min

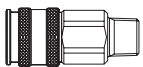
For technical information see CD

Intercheck 35

Check units



Connection	Order Code
1/4" BSPP	P6C-JS12
3/8" BSPP	P6C-JS13
1/2" BSPP	P6C-JS14



Connection	Order Code
1/4" BSPT	P6C-JSB2
3/8" BSPT	P6C-JSB3
1/2" BSPT	P6C-JSB4

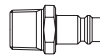


Hose ID	Order Code
6mm	P6C-JSH6
8mm	P6C-JSH8
10mm	P6C-JSHA
13mm	P6C-JSHC

Adaptors



Connection	Order Code	Pack Qty
1/4" BSPP	P6A-JS12-005	5
3/8" BSPP	P6A-JS13-005	5



Connection	Order Code	Pack Qty
1/4" BSPT	P6A-JSB2-005	5
3/8" BSPT	P6A-JSB3-005	5
1/2" BSPT	P6A-JSB4-005	5



Hose ID	Order Code	Pack Qty
6mm - Hose tail	P6A-JSH6-005	5
8mm - Hose tail	P6A-JSH8-005	5
10mm - Hose tail	P6A-JSHA-005	5
13mm - Hose tail	P6A-JSHC-005	5

 Indicates stocked product.

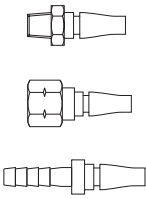
Quick acting couplers

Schrader standard series

Check units

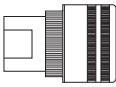
	Connection	Order Code	Pack Qty
	G1/4 BSPP - Female	8952DL-12	10
	R1/4 BSPT - Male	9793D-12	10
	R3/8 BSPT - Male	9792D-12	10

Adaptors

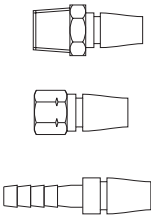
	Connection	Order Code	Pack Qty
	R1/8 BSPT	8051B-11	10
	R1/4 BSPT	8050B-11	10
	G1/8 BSPP	2047B	10
	G1/4 BSPP	8278L-11	10
	1/4" 6mm Hose tail	8787-11	10
	5/16" 8mm Hose tail	9750-11	10
	3/8" 10mm Hose tail	8788-11	10
	G1/4 BSPP Non-whip	9031	10

Schrader heavy duty series

Check units

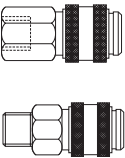
	Connection	Order Code	Pack Qty
	G1/4 BSPP - Female	1054EL-12	5
	G3/8 BSPP - Female	1095EL-12	5
	G1/2 BSPP - Female	1461EL-12	5
	G3/4 BSPP - Female	1462EL-12	5

Adaptors

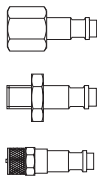
	Connection	Order Code	Pack Qty
	R1/4 BSPT	8624B-11	10
	R3/8 BSPT	9739-11	10
	R1/2 BSPT	8807-11	10
	G3/4 BSPP	1462B-11	10
	G1/4 BSPP	1261L-11	10
	G3/8 BSPP	1096B-11	10
	3/8" 10mm Hose tail	1097-11	10
	1/2" 12mm Hose tail	1098-11	10
	G3/8 BSPP Non-whip	9042	10

Mini series

Check units

	Connection	Order Code	Pack Qty
	G1/8 BSPP - Female	7073	10
	G1/8 BSPP - Male	7071	10

Adaptors

	Connection	Order Code	Pack Qty
	G1/8 BSPP	7370	10
	G1/8 BSPP	7170	10
	4mm - Finger tight	7470	10

 Indicates stocked product.

- Use with plastic or metal tubing
- Positive hold by a flexible grab ring
- Ready to use fitting
- Plastic push button
- Taper thread fittings for general use
- Parallel thread fittings for use with plastic bodied valves
- Other versions available, refer to CD



Ordering information

Prestolok fittings are sold in packs. The package quantities are indicated adjacent to the part numbers. When ordering, order by the quantity required. For example : to obtain 20 Prestolok 2 Equal Union 4mm Tees, purchase order should state:-

Qty 20

EPB4

Note

Orders received for Prestolok fittings in quantities other than pack quantity multiples will be rounded up to the nearest multiple

Operating information

Prestolok Micro

Working pressure 0,01 to 16 bar
Working temperature -25 °C to +80 °C

Prestolok 2

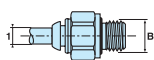
Working pressure 0,01 to 25 bar
Working temperature -25 °C to +70 °C

Prestolok

Working pressure 0,01 to 25 bar
Working temperature -25 °C to +100 °C

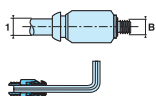
For technical information see CD

Male straight connectors - Parallel thread



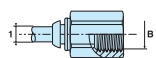
Tube Ø1	Thread B	Order code	Box Qty
4	M5x,0,8	F8PMB4M5	30
6	M5x,0,8	F8PMB6M5	20
4	1/8	F4PMB4-1/8	20
4	1/4	F4PMB4-1/4	20
6	1/8	F4PMB6-1/8	30
6	1/4	F4PMB6-1/4	30
8	1/8	F4PB8-1/8	40
8	1/4	F4PB8-1/4	30
8	3/8	F4PB8-3/8	20
10	1/4	F4PB10-1/4	20
10	3/8	F4PB10-3/8	20
10	1/2	F4PB10-1/2	10
12	1/4	F4PB12-1/4	10
12	3/8	F4PB12-3/8	10
12	1/2	F4PB12-1/2	10
14	3/8	F4PB14-3/8	10
14	1/2	F4PB14-1/2	10

Male straight connectors



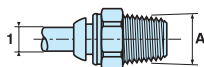
Tube Ø1	Thread B	Order code	Box Qty
4	M5x,0,8	F28PMB4M5	30
6	M5x,0,8	F28PMB6M5	20

Female connectors



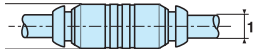
Tube Ø1	Thread B	Order code	Box Qty
4	M5x,0,8	G8PMB4M5	10
4	1/8	G4PMB4-1/8	20
4	1/4	G4PMB4-1/4	10
6	1/8	G4PMB6-1/8	20
6	1/4	G4PMB6-1/4	10
8	1/8	G4PB8-1/8	10
8	1/4	G4PB8-1/4	10

Male Connector - BSPT



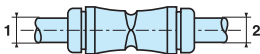
Tube Ø1	Thread A	Order code	Box Qty
4	1/8	F3PMB4-1/8	40
4	1/4	F3PMB4-1/4	30
6	1/8	F3PMB6-1/8	40
6	1/4	F3PMB6-1/4	40
8	1/8	F3PB8-1/8	40
8	1/4	F3PB8-1/4	40
8	3/8	F3PB8-3/8	30
10	1/4	F3PB10-1/4	20
10	3/8	F3PB10-3/8	20
10	1/2	F3PB10-1/2	10
12	1/4	F3PB12-1/4	10
12	3/8	F3PB12-3/8	10
12	1/2	F3PB12-1/2	10
14	3/8	F3PB14-3/8	10
14	1/2	F3PB14-1/2	10

Equal union



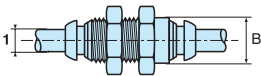
Tube Ø1	Plastic Order code	Box Qty	Metal Order code	Box Qty
4	HPMK4	20	HPB4	30
6	HPMK6	30	HPB6	20
8	HPK8	30	HPB8	20
10	HPK10	20	HPB10	10
12	HPK12	10	HPB12	10
14	HPK14	10	HPB14	5

Unequal union



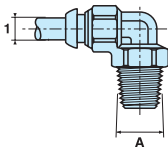
Tube Ø1	Tube Ø2	Plastic Order code	Box Qty
6	4	HPMK6-4	20
8	4	HPK8-4	20
8	6	HPK8-6	20
10	6	HPK10-6	10
10	8	HPK10-8	10
12	10	HPK12-10	10

Bulkhead equal union



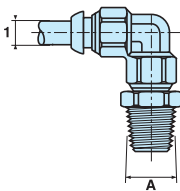
Tube Ø1	Thread B	Metal (Micro) Order code	Box Qty	Metal Order code	Box Qty
4	M11x0.75	WPMB4	10	WPB4	10
6	M13x1	WPMB6	10	WPB6	10
8	M15x1.25			WPB8	10
10	M18x1			WPB10	5
12	M23x1.5			WPB12	5
14	M24x1.5			WPB14	3

Compact elbow - BSPT



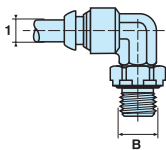
Tube Ø1	Thread A	Metal Order code	Box Qty
4	1/8	C3PB4-1/8	20
6	1/8	C3PB6-1/8	10
6	1/4	C3PB6-1/4	10
8	1/8	C3PB8-1/8	10
8	1/4	C3PB8-1/4	10
10	1/4	C3PB10-1/4	10
10	3/8	C3PB10-3/8	10
12	3/8	C3PB12-3/8	5
12	1/2	C3PB12-1/2	5
14	3/8	C3PB14-3/8	5
14	1/2	C3PB14-1/2	5

Adjustable male elbow - BSPT



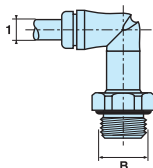
Tube Ø1	Thread A	Plastic Order code	Box Qty	Metal Order code	Box Qty
4	1/8	C63PMK4-1/8	30	C63PB4-1/8	20
4	1/4	C63PMK4-1/4	20	C63PB4-1/4	20
6	1/8	C63PMK6-1/8	20	C63PB6-1/8	20
6	1/4	C63PMK6-1/4	20	C63PB6-1/4	20
8	1/8	C63PK8-1/8	20	C63PB8-1/8	20
8	1/4	C63PK8-1/4	20	C63PB8-1/4	10
8	3/8	C63PK8-3/8	10	C63PB8-3/8	10
10	1/4	C63PK10-1/4	10	C63PB10-1/4	10
10	3/8	C63PK10-3/8	10	C63PB10-3/8	10
10	1/2	C63PK10-1/2	10		
12	1/4	C63PK12-1/4	10	C63PB12-1/4	10
12	3/8	C63PK12-3/8	10	C63PB12-3/8	10
12	1/2	C63PK12-1/2	10	C63PB12-1/2	5
14	3/8	C63PK14-3/8	10	C63PB14-3/8	5
14	1/2	C63PK14-1/2	10	C63PB14-1/2	5

Compact adjustable male elbow - Parallel



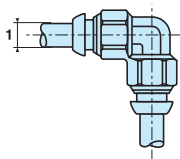
Tube Ø1	Thread B	Plastic Order code	Box Qty	Metal Order code	Box Qty
4	M5x0,8	C68SPK4M5	20	C68SPB4M5	10
4	1/8	C64SPK4-1/8	20	C64SPB4-1/8	10
4	1/4	C64SPK4-1/4	20		
6	1/8	C64SPK6-1/8	20	C64SPB6-1/8	10
6	1/4	C64SPK6-1/4	20	C64SPB6-1/4	10
8	1/8	C64SPK8-1/8	20	C64SPB8-1/8	10
8	1/4	C64SPK8-1/4	20	C64SPB8-1/4	10
8	3/8	C64SPK8-3/8	10	C64SPB8-3/8	10
10	1/4			C64SPB10-1/4	10
10	3/8			C64SPB10-3/8	10
12	1/4			C64SPB12-1/4	10
12	3/8			C64SPB12-3/8	5
12	1/2			C64SPB12-1/2	5

Adjustable extended male elbow - Parallel



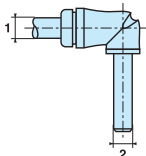
Tube Ø1	Thread B	Plastic Order code	Box Qty
4	1/8	C64LPMK4-1/8	10
4	1/4	C64LPMK4-1/4	10
6	1/8	C64LPMK6-1/8	10
6	1/4	C64LPMK6-1/4	10

Equal union elbow



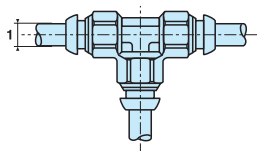
Tube Ø1	Plastic Order code	Box Qty	Metal Order code	Box Qty
4	EPMK4	20	EPB4	20
6	EPMK6	20	EPB6	20
8	EPK8	20	EPB8	10
10	EPK10	10	EPB10	10
12	EPK12	10	EPB12	10
14	EPK14	10	EPB14	5

Compact plug in elbow



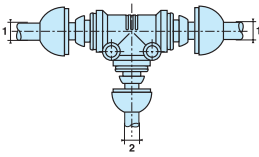
Tube Ø1	Tube Ø2	Plastic Order code	Box Qty
4	4	T2ESPMK4	20
6	6	T2ESPMK6	20
4	6	T2ESPMK4-6	30
8	8	T2ESPK8	20

Equal union tee



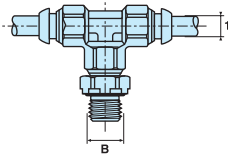
Tube Ø1	Plastic Order code	Box Qty	Metal Order code	Box Qty
4	JPMK4	20	JPB4	10
6	JPMK6	20	JPB6	10
8	JPK8	10	JPB8	10
10	JPK10	10	JPB10	10
12	JPK12	10	JPB12	5
14	JPK14	5	JPB14	5

Unequal union tee



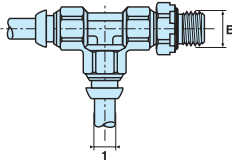
Tube Ø1	Tube Ø2	Plastic Order code	Box Qty
6	4	JPK6-6-4	10
8	6	JPK8-8-6	10
10	8	JPK10-10-8	10
12	10	JPK12-12-10	10
4	6	JPK4-4-6	10
6	8	JPK6-6-8	10
8	10	JPK8-8-10	10
10	12	JPK10-10-12	5

Adjustable male run tee - Parallel



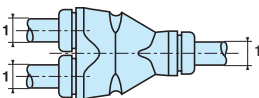
Tube Ø1	Thread B	Plastic Order code	Box Qty	Metal Order code	Box Qty
4	M5x0,8	R68PMK4M5	10	R68PB4M5	10
6	M5x0,8	R68PMK6M5	10	R68PB6M5	10
4	1/8	R64PMK4-1/8	10	R64PB4-1/8	10
4	1/4	R64PMK4-1/4	10	R64PB4-1/4	10
6	1/8	R64PMK6-1/8	10	R64PB6-1/8	10
6	1/4	R64PMK6-1/4	10	R64PB6-1/4	10
8	1/8	R64PK8-1/8	10	R64PB8-1/8	10
8	1/4	R64PK8-1/4	10	R64PB8-1/4	10
8	3/8	R64PK8-3/8	10	R64PB8-3/8	10
10	1/4	R64PK10-1/4	10	R64PB10-1/4	5
10	3/8	R64PK10-3/8	5	R64PB10-3/8	5
12	1/4	R64PK12-1/4	5	R64PB12-1/4	5
12	3/8	R64PK12-3/8	5	R64PB12-3/8	5
14	3/8	R64PK14-3/8	5	R64PB14-3/8	3
14	1/2	R64PK14-1/2	5	R64PB14-1/2	3

Adjustable male branch tee - Parallel



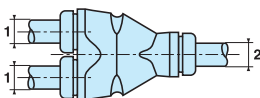
Tube Ø1	Thread B	Plastic Order code	Box Qty	Metal Order code	Box Qty
4	M3x0,5	S68PMK4M3	10		
4	M5x0,8	S68PMK4M5	10	S68PB4M5	10
6	M5x0,8	S68PMK6M5	10	S68PB6M5	10
4	1/8	S64PMK4-1/8	10	S64PB4-1/8	10
4	1/4	S64PMK4-1/4	10	S64PB4-1/4	10
6	1/8	S64PMK6-1/8	10	S64PB6-1/8	10
6	1/4	S64PMK6-1/4	10	S64PB6-1/4	10
8	1/8	S64PK8-1/8	10	S64PB8-1/8	10
8	1/4	S64PK8-1/4	10	S64PB8-1/4	5
8	3/8	S64PK8-3/8	10	S64PB8-3/8	5
10	1/4	S64PK10-1/4	10	S64PB10-1/4	5
10	3/8	S64PK10-3/8	5	S64PB10-3/8	5
12	1/4	S64PK12-1/4	5	S64PB12-1/4	5
12	3/8	S64PK12-3/8	5	S64PB12-3/8	5
14	3/8	S64PK14-3/8	5	S64PB14-3/8	3
14	1/2	S64PK14-1/2	5	S64PB14-1/2	3

Equal union Y connector



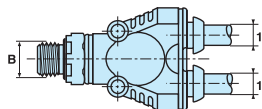
Tube Ø1	Plastic Order code	Box Qty
4	YJPMK4	20
6	YJPMK6	10
8	YJPK8	10
10	YJPK10	10

Unequal union Y connector



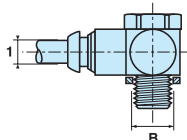
Tube Ø1	Tube Ø2	Plastic Order code	Box Qty
3	4	YJPMK4-3	10
3	6	YJPMK6-3	10
4	6	YJPMK6-4	10
6	8	YJPK6-6-8	10
8	10	YJPK8-8-10	5

Adjustable male Y connector - Parallel



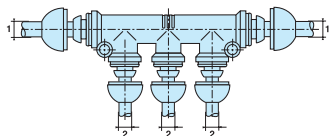
Tube Ø1	Thread B	Plastic Order code	Box Qty
4	M5x0,8	YJ68PMK4M5	10
6	M5x0,8	YJ68PMK6M5	10
4	1/8	YJ64PK4-1/8	10
4	1/4	YJ64PK4-1/4	10
6	1/8	YJ64PK6-1/8	10
6	1/4	YJ64PK6-1/4	10
8	1/8	YJ64PK8-1/8	5
8	1/4	YJ64PK8-1/4	5

Single banjo - assembled - Parallel



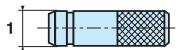
Tube Ø1	Tube Ø2	Metal Order code	Box Qty
4	M5x0,8	COR8PB4M5	20
4	1/8	COR4PB4-1/8	10
6	1/8	COR4PB6-1/8	20
6	1/4	COR4PB6-1/4	20
8	1/8	COR4PB8-1/8	10
8	1/4	COR4PB8-1/4	20
10	3/8	COR4PB10-3/8	10

Multiple tee - 5 connections



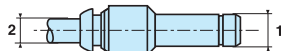
Tube Ø1	Tube Ø2	Plastic Order code	Box Qty
6	4	J5PK6-4	10
8	4	J5PK8-4	5
8	6	J5PK8-6	5
10	6	J5PK10-6	5

Plug



Tube Ø1	Plastic Order code	Box Qty	Metal Order code	Box Qty
4	FNPK4	50	FNPB4	50
6	FNPK6	50	FNPB6	50
8	FNPK8	50	FNPB8	50
10	FNPK10	50	FNPB10	30
12	FNPK12	30	FNPB12	20
14	FNPK14	30	FNPB14	20

Tube end reducer



Tube Ø1	Tube Ø2	Plastic Order code	Box Qty	Metal Order code	Box Qty
4	3	TR2PMK4-3	20		
6	4	TR2PK6-4	40	TRPB6-4	20
8	4	TR2PK8-4	40	TRPB8-4	20
8	6	TR2PK8-6	30	TRPB8-6	10
10	4	TR2PK10-4	30	TRPB10-4	10
10	6	TR2PK10-6	30	TRPB10-6	10
10	8	TR2PK10-8	20	TRPB10-8	10
12	6	TR2PK12-6	20	TRPB12-6	10
12	8	TR2PK12-8	20	TRPB12-8	10
12	10	TR2PK12-10	10	TRPB12-10	10
14	8	TR2PK14-8	20	TRPB14-8	10
14	10	TR2PK14-10	10	TRPB14-10	10
14	12	TR2PK14-12	10	TRPB14-12	5

Flexible tubing

All Parker tubing is manufactured to a very high specification and is compatible with Parker Push-in fittings.

Nylon tubing is very tough and abrasion resistant and is suitable for the vast majority of pneumatic applications.

For complicated piping including tight bend radii such as with cabinets, the highly flexible Polyurethane tubing is ideal.

- Tubing available in several colours for easy identification
- Good vibration/damping properties,
- Light weight
- High abrasion resistance



Operating information

Nylon tube

Tube OD	Tolerance (mm)
4 mm	+ 0.05 -0.08
6 to 12 mm	+0.05 -0.10

Polyurethane tube

Tube OD	Tolerance (mm)
4 to 8 mm	±0.1
10 to 12 mm	±0.15

For technical information see CD

Nylon tube - 25m

Tube Size	Outside Ømm	Wall Thickness	Colour	Order code 25 m length
4x2	4	1,00	Clear	N4X1/1-25
4x2	4	1,00	Blue	N4X1/3-25
4x2	4	1,00	Black	N4X1/5-25
4x2,7	4	0,65	Clear	N4X0,65/1-25
4x2,7	4	0,65	Blue	N4X0,65/3-25
4x2,7	4	0,65	Black	N4X0,65/5-25
6x4	6	1,00	Clear	N6X1/1-25
6x4	6	1,00	Blue	N6X1/3-25
6x4	6	1,00	Black	N6X1/5-25
8x6	8	1,00	Clear	N8X1/1-25
8x6	8	1,00	Blue	N8X1/3-25
8x6	8	1,00	Black	N8X1/5-25
10x8	10	1,00	Clear	N10X1/1-25
10x8	10	1,00	Blue	N10X1/3-25
10x8	10	1,00	Black	N10X1/5-25
12x10	12	1,00	Clear	N12X1/1-25
12x10	12	1,00	Blue	N12X3/1-25
12x10	12	1,00	Black	N12X5/1-25

Polyurethane tube - 25m

Tube Size	Outside Ømm	Wall Thickness	Colour	Order code 25 m length
4x2,5	4	0,75	Clear	TPU4X0,75/1-25
4x2,5	4	0,75	Blue	TPU4X0,75/3-25
4x2,5	4	0,75	Black	TPU4X0,75/5-25
6x4,0	6	1,00	Clear	TPU6X1/1-25
6x4,0	6	1,00	Blue	TPU6X1/3-25
6x4,0	6	1,00	Black	TPU6X1/5-25
8x5,5	8	1,25	Clear	TPU8X1,25/1-25
8x5,5	8	1,25	Blue	TPU8X1,25/3-25
8x5,5	8	1,25	Black	TPU8X1,25/5-25
10x7,0	10	1,50	Clear	TPU10X1,5/1-25
10x7,0	10	1,50	Blue	TPU10X1,5/3-25
10x7,0	10	1,50	Black	TPU10X1,5/5-25
12x8,0	12	2,00	Clear	TPU12X2/1-25
12x8,0	12	2,00	Blue	TPU12X2/3-25
12x8,0	12	2,00	Black	TPU12X2/5-25

Tube cutter



Order code
P6T-C

Ideal for general cleaning and bench dusting. The variety of nozzles available enable users to configure the ideal unit for most applications. NB. When used with compressed air pressure above 2 bar adequate safety precautions must be taken.



- 2 different types for various applications
- Different types of safety nozzle available
- Ergonomically designed
- Lightweight operating forces

Operating information

Blowguns 600

Working pressure
Working temperature

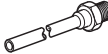
Max 7 bar
-20 °C to +100 °C

For technical information see CD

600-601

Symbol	Note	Inlet Thread	Order code
	Standard Safety	G1/4	600
	Air shield	G1/4	601

Accessories

Type	Description	Order code
	Aluminium nozzle with 1mm orifice*	607
	Aluminium nozzle, blank*	606
	Domed nozzle*	8972-8
	Aspirator Safety nozzle	401C
	Flexible nozzle*	8726A

* **Note!** When used with pressure above 2 bar, adequate safety precautions must be taken.

 Indicates stocked product.

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